Commonwealth of Virginia
Virginia Information Technologies Agency

TELECOMMUNICATIONS NETWORK AND RELATED SERVICES

Mandatory Use Contract*

Date:	July 14, 2004
Contract #:	VA-031104-MCI
Authorized User:	State Agencies* *Optional Use Contract for other Public Bodies
Contractor:	MCI WorldCom Communications, Inc. 22001 Loudoun County Parkway Ashburn, VA 20147
FIN:	54-1649507
Contact Person:	See Attachment F
Rates and Charges:	See Attachment B
Term:	November 1, 2003 – October 31, 2007
Payment:	Net 30 days

For Additional Information, Please Contact:

Technical Information:
Joe Parr
Telecommunications Procurement Engineer
Phone: 804-371-5991
E-Mail: joe.parr@vita.virginia.gov

Laverne Branch
Phone: 804-371-5992
E-Mail: laverne.branch@vita.virginia.gov
Fax: 804-371-5969

NOTES: Individual Commonwealth of Virginia employees are not authorized to purchase equipment or services for their personal use from this Contract.

For updates, please visit our Website at http://www.asd.virginia.gov

CONTRACT #VA-031104-MCI

CONTRACT CHANGE LOG

Change No.	Description of Change	Effective Date
1	Reduce pricing for ImagePort-Fax Broadcast and MCI Web Center & add ImagePort Email services and pricing	3/24/04
2	Adds NetConferencing Services to contract	5/26/04
3	Adds Enhanced Web Center Services	7/12/04
4	Revises CAC charges, reduces Network Management Fee & add/delete MCI staff	7/14/04

VITA: Prior review and approval by the Virginia Information Technologies Agency (VITA) is required for purchases in excess of $100,000.00 for State Agencies and Institutions only.

MODIFICATION # 4
TO
CONTRACT NUMBER VA-031104-MCI
BETWEEN THE
COMMONWEALTH OF VIRGINIA
AND
MCI WORLDCOM COMMUNICATIONS, INC.

This MODIFICATION # 4 is an agreement between the Commonwealth of Virginia, hereinafter referred to as "State" or "Commonwealth", or "VITA" (Virginia Information Technologies Agency) and MCI WorldCom Communications, Inc., hereinafter referred to as "Contractor" or "MCI", relating to Contract VA-031104-MCI, hereinafter referred to as the "Contract" or "Agreement". This Modification # 4 is hereby incorporated into and made an integral part of the Agreement, as modified.

The purpose of this Modification # 4 is to revise the calculation of CAC charges and to reduce the Network Management Fee and add / delete MCI Staff.

Reference: Page 9 of 22, Paragraph 24, entitled "Modifications":

1. Carrier Access Charges (CAC):

Both of the above-referenced parties agree to the following:

Reference: Attachment B "Rates and Charges", Section B.0.5:

Delete this Section in its entirety.

Reference: Attachment D "Billing and Chargeback", Section D.6:

Delete the Section in its entirety and replace with the following:

- Each month, VITA will scan the VITA TEAMS database to determine what VITA showed active for each of the following line types:
  - Multi-Business Lines
  - ISDN BRI
  - ISDN PRI
  - Centrex

  Every 6 months, an average volume will be determined for each line type.
- The average volume by line types will be multiplied by MCI's current rates for Carrier Access Charge ("CAC") as published in MCI's Service Publication and Price Guide ("Guide") to determine the monthly CAC. The Guide is available on MCI's Internet website (www.mci.com) ("Website") and at MCI's headquarters located at 22001 Loudoun County Parkway, Ashburn, Virginia 20147 during regular business hours. While direct URL links are subject to change, the direct URL link for the Guide provision

related to CAC charges is currently http://global.mci.com/publications/service_guide/products/docs/m_cac.doc

- If MCI's published CAC rates change, MCI will notifying VITA's Assistant Controller and Contracts Manager in writing of the new rates, and the new rate(s) will be applied to the current 6 month's average volume.
- As of this modification, MCI's current published CAC rates are:
  - Multi-Business Lines = $2.05 per line
  - ISDN BRI = $2.05 per line
  - ISDN PRI = $0.41 per channel
  - Centrex = $0.20 per line
- DSP customers will be billed for the CAC using a process to be agreed upon by each DSP customer and MCI.

This revised method if calculating CAC rates will become effective with invoices dated June 1, 2004 or later.

2. Network Management Services:

Both of the above referenced parties further agree to the following:

Reference: Attachment B "Rates and Charges", Section B.3.1:

Network Management NOC Support (includes Hot Site Access PVCs) is reduced from $65,000 per month to $50,000 per month. The effective date for the revised Network Management NOC Support monthly rate is July 1, 2004.

Reference: Attachment E "Network Management Services", Section E.1:

Delete the first three sentences of the first paragraph in the Section and replace same with the following:

"MCI will operate the VNOC, located at MCI's Richmond Operations Center. MCI will staff the VNOC with personnel specifically assigned to support the Commonwealth. The Center will operate from 7:30 a.m. to 6:30 p.m., Monday through Friday, except for official Commonwealth holidays."

Reference: Attachment F "Key Personnel", Section F.2, entitled "Account Management Organization:

Delete the following two sentences from the Section:

"The MCI team also staffs a Network Operations Center at VITA. This site is managed by the MCI Network Operations team and is available for trouble resolution and network questions in general."

Reference: Attachment F "Key Personnel", Table F.2.3 "COVANET Positions and Job Descriptions":

Delete Nicholas Milford and Open Positions under "Technical Support Services" and add James Knight and James LeMond to same.

Reference: Attachment F "Key Personnel", Table F.2.4 "Names and Titles of Staff":

Delete Jennifer Derr under "COVANET Project Management".

The foregoing is the complete and final expression of the parties' agreement to modify Contract VA-031104-MCI and cannot be modified, except by a writing signed by duly authorized representatives of both parties.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

PERSONS SIGNING THIS CONTRACT ARE AUTHORIZED REPRESENTATIVES OF EACH PARTY TO THIS CONTRACT AND ACKNOWLEDGE THAT EACH PARTY AGREES TO BE BOUND BY THE TERMS AND CONDITIONS OF THE CONTRACT.

MCI WORLDCOM COMMUNICATIONS, INC.	COMMONWEALTH OF VIRGINIA
BY: Jerry A Edgerton	BY: Joe Parr
NAME: Jerry A. Edgerton, Senior V.P.	NAME: Joe A. Parr
TITLE:	TITLE Tech Contracts Manager
DATE: 7/1/04	DATE: 7/6/04

MODIFICATION # 3
TO
CONTRACT NUMBER VA-031104-MCI
BETWEEN THE
COMMONWEALTH OF VIRGINIA
AND
MCI WORLDCOM COMMUNICATIONS, INC.

This MODIFICATION # 3 is an agreement between the Commonwealth of Virginia, hereinafter referred to as "State" or "Commonwealth", or "VITA" (Virginia Information Technologies Agency) and MCI WorldCom Communications, Inc., hereinafter referred to as "Contractor" or "MCI", relating to Contract VA-031104-MCI, hereinafter referred to as the "Contract" or "Agreement". This Modification # 3 is hereby incorporated into and made an integral part of the Agreement, as modified.

The purpose of this Modification # 3 is to add Enhanced Web Center Services to the Agreement.

Reference: Page 9 of 22, Paragraph 24, entitled "Modifications":

Both of the above-referenced parties agree to add Enhanced Web Center Services to the Agreement as delineated herein:

Section A.12.3.A

Enhanced Web Center Service

The Enhanced Web Center Service (EWCS) combines the feature functionality of the contractual Web Center Service (A.12.3 Web Center) with additional scheduling and telephony services in a hosted premise based solution.

Enhanced Web Center has the capabilities to offer services for up to 70 call center agents using full Web Center capabilities and a scheduling module for supervisors to allow for Work Force Management and planning purposes.

Additionally, the service offers basic integrated telephony services (for up to 200 users) in a telephony server based, hosted premise solution. The service will integrate with existing premise based distribution systems and will provide for office/premise based telephony devices to be included as part of the service. .

The overall system will be engineered to service 100 simultaneous users.

The additional features and functionality of Enhanced Web Center are as follows:

a. Work Force Management and Scheduling Tools: (WFMST)

This module integrates into the basic Web Center functionality and provides for forecasting, scheduling and staffing planning purposes.

The forecasting component processes contact center data such as volumes, average handling time per call and uses this data to predict and forecast the number required resources to be deployed at a given time period in order to satisfy desired levels of service performance.

The scheduling component of WFMST enables the call center staff to create detailed schedules that take into consideration the number of resources and its skill set to satisfy given levels of customer call volumes.

The staffing component of WFMST allows contact center managers and supervisors to track actual staffing performance levels and make changes to levels within 15 or 30 minute intervals as desired.

b. Web Center PBX Telephony Services

The WCPTS services component is utilized for premise based employees engaged in traditional office voice communication services (such as inbound, outbound calls, voicemail, hold, conferencing, transfer functions).

This service utilizes a premise based deployment of hardware and software (which MCI maintains ownership of) using software based cards deployed on the premise to integrate the application and the telephony network (i.e. local and long distance voice facilities and services are not a part of the Enhanced Web center offering, such as local PRI and T-1 access facilities.)

Additionally, a web based interface is included to allow for system administration and setup functions, such as: employee profiles, assign employee extension numbers, creating a company directory of employees and to generate telephony reports.

Incremental call center agents and telephony users can be added on an incremental basis as outlined in Section B.12.3.A of the agreement.

MCI will install, train, and maintain the installed service for the customer with a combination of remote based support and service and, if necessary, with local premise based employees deployed by MCI and the COVANET team.

The charges for these services are outlined in Section B.12.3.A of the agreement.

Section B.12.3.A

I. Enhanced Web Center Service

A. Monthly Fees:

$23,500 Monthly charge (For 70 Call Center Agents and 2 Supervisors for Web Center)

$22,200 Monthly charge (For 200 Telephony Users (non Web Center users) and Work Force Management Module)

Maximum of 100 simultaneous user interactions

B. Incremental User Fees:

1. $325 per Call Center/Web Center Agent
2. $375 per Call Center/Web Center Supervisor
3. $25 per Standard Telephony Based User

C. Features/Services Inclusions:

Includes service installation, training, software, premise based hardware (servers) and ongoing service and maintenance.

Handset telephony devices (non IP/SIP) with basic display and feature capabilities.

II. Work Force Management and Scheduling Module

Installation Fees:

System Integration/Installation charges of $1,897 per 8 hour day for non-standard integration services as specified by the customer during installation and implementation planning process.

The foregoing is the complete and final expression of the parties' agreement to modify Contract VA-031104-MCI and cannot be modified, except by a writing signed by duly authorized representatives of both parties.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

PERSONS SIGNING THIS CONTRACT ARE AUTHORIZED REPRESENTATIVES OF EACH PARTY TO THIS CONTRACT AND ACKNOWLEDGE THAT EACH PARTY AGREES TO BE BOUND BY THE TERMS AND CONDITIONS OF THE CONTRACT.

MCI WORLDCOM COMMUNICATIONS, INC.	COMMONWEALTH OF VIRGINIA
BY: Jerry A. Edgerton	BY: Joe A. Parr
NAME: Jerry A. Edgerton, Senior V.P.	NAME: Joe A. Parr
TITLE:	TITLE: Tech Contracts Manager
DATE: 7/8/04	DATE: 7/12/04

MODIFICATION # 2
TO
CONTRACT NUMBER VA-031104-MCI
BETWEEN THE
COMMONWEALTH OF VIRGINIA
AND
MCI WORLDCOM COMMUNICATIONS, INC.

This MODIFICATION # 2 is an agreement between the Commonwealth of Virginia, hereinafter referred to as "State" or "Commonwealth", or "VITA" (Virginia Information Technologies Agency) and MCI WorldCom Communications, Inc., hereinafter referred to as "Contractor" or "MCI", relating to Contract VA-031104-MCI, hereinafter referred to as the "Contract" or "Agreement". This Modification # 2 is hereby incorporated into and made an integral part of the Agreement.

The purpose of this Modification # 2 is to add Netconferencing Services to the Agreement.

Reference: Page 9 of 22, Paragraph 24, entitled "Modifications":

NETCONFERENCING SERVICE:

With Net Conferencing, Authorized Users can view documents whether they are across the office or across the world. Many participants can discuss documents using presentations, whiteboard annotations, drawings, or true application sharing for real-time editing via the Internet. Net Conferencing users simply need an average desktop, standard Internet browser packages, and a telephone.

1. Reserved Net Conference

With Reserved Net Conference, the leader can give a presentation as if he were in the same room with an audience. Although its main purpose is to broadcast information from a small group of leaders to a larger audience, Reserved Net Conference includes interactive tools, such as Net Polling, Net Chat, Web Action, Share View, Share Application, and Net Q&A, to keep a large group involved in any presentation and allow the leader to collect feedback. Up to 1,000 participants can view your material with Reserved Net Conference, and leaders can pass control of documents to participants on the call.

2. Instant Net Conference

Instant Net Conference is ideal for small groups trying to create or edit documents from their desktops or discuss a presentation. Also featuring true application sharing, Instant Net Conference is excellent for project teams and technical groups. Control of documents and presentation is easily passed from participant to participant. Instant Net Conference allows all participants to print or save the documents being created. For any meetings with over 100

participants it is recommended that this product be utilized in conjunction with MCI's audio conferencing service as outlined in Section B.2.10.1 of the contract.

3. Pricing Components

Net Conferencing Service:

Per User per Minute for both Instant and Reserved Conference:

A. $0.24 for Net Conferencing (standard)
B. $0.32 for Net Conferencing with Secure Socket Layer Service

Ancillary Services:

Net Replay, set-up							US$250
Net Replay, each 30 days							US$250
File Download (FTP), onetime fee							US$500
Cancellation fee, per scheduled participant							US$5 per participant

4. Reserved Net Conference System Requirements

A. Browser

1) Netscape Navigator 4.06 and above
2) Microsoft Internet Explorer 4.0 and above

B. Computer

1) 166 Mhz Pentium-based PC with Windows 95, 98, NT, or 2000
2) Sun SPARCstation with Solaris 2.5.1 or 2.6
3) Participants: 64 MB RAM
4) Presenter: 128 MB RAM

C. Internet Connection Speed

28.8K or faster (56K or faster recommended)

D. Display

1024x768 pixels recommended

E. Viewing Net Replay

1) Windows Media Player
2) 56K or faster

5. Instant Net Conference System Requirements

Below are the requirements for Microsoft Windows users.

A. Browser

1) Netscape Navigator 4.x
2) Microsoft Internet Explorer 4.x and 5.x

B. Computer

1) 166 Mhz Pentium-based PC with Windows 95, 98, NT, or 2000
2) 96 MB RAM

C. Internet Connection Speed

56K or faster

D. Display

1) 800 x 600 pixels recommended
2) JavaScript and cookies must be enabled

Below are the requirements for Mac OS users:

For fully interactive meetings on Mac OS:

A. Mac OS 8.5 or later
B. PowerPC Macintosh (G3 or better recommended)
C. 64MB RAM
D. Netscape Communicator 4.5 through 4.7, or Internet Explorer 5
E. JavaScript and cookies enabled for the browser
F. 56K or better Internet connection

For attendees using Java on Mac OS:

A. PowerPC (G3 preferred)
B. Microsoft Internet Explorer 4.x (Netscape doesn't yet support Java 1.1)
C. MRJ (Macintosh Runtime for Java) 2.1.4

Below are the requirements for Solaris users.

For fully interactive meetings on Solaris:

A. Solaris 2.7 or Solaris 8
B. UltraSPARC or SPARC processor
C. 128MB RAM
D. Netscape 4.5x, 4.6x, or 4.7x
E. Cookies and Java enabled for the browser
F. 16-bit or better video display
G. CDE or OpenWindows
H. 56K or better Internet connection
I. For attendees using Java on Solaris (and Linux):
J. Netscape Communicator 4.6

The foregoing is the complete and final expression of the parties' agreement to modify Contract VA-031104-MCI and cannot be modified, except by a writing signed by duly authorized representatives of both parties.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

PERSONS SIGNING THIS CONTRACT ARE AUTHORIZED REPRESENTATIVES OF EACH PARTY TO THIS CONTRACT AND ACKNOWLEDGE THAT EACH PARTY AGREES TO BE BOUND BY THE TERMS AND CONDITIONS OF THE CONTRACT.

MCI WORLDCOM COMMUNICATIONS, INC.

BY: Jerry A Edgerton

NAME: Jerry A. Edgerton

TITLE: Jerry A. Edgerton, Senior V.P.

DATE: 5/17/04

COMMONWEALTH OF VIRGINIA

BY: Joe A Parr

NAME: Joe A. Parr

TITLE: Tech Contracts Manager

DATE: 5/26/04

MODIFICATION # 1
TO
CONTRACT NUMBER VA-031104-MCI
BETWEEN THE
COMMONWEALTH OF VIRGINIA
AND
MCI WORLDCOM COMMUNICATIONS, INC.

This MODIFICATION # 1 is an agreement between the Commonwealth of Virginia, hereinafter referred to as "State" or "Commonwealth", or "VITA" (Virginia Information Technologies Agency) and MCI WorldCom Communications, Inc., hereinafter referred to as "Contractor" or "MCI", relating to Contract VA-031104-MCI, hereinafter referred to as the "Contract" or "Agreement". This Modification # 1 is hereby incorporated into and made an integral part of the Agreement.

The purpose of this Modification # 1 is to reduce pricing for ImagePort – Fax Broadcast and MCI Web Center and to add ImagePort Email services and pricing to the Agreement. In addition, by this Modification #1, a provision for Contractor Product/Services Promotions will be added to the Agreement.

Reference: Page 9 of 22, Paragraph 24, entitled "Modifications":

Both of the above referenced parties hereby agree to delete Table B.2.8 ImagePort – Fax Service on page B-34 of the Agreement and replace it with the following:

ImagePort – Fax Broadcast

Domestic Peak	$0.09	$0
Domestic Off Peak	$0.09	$0
International Peak & Off-Peak	See Appendix B-1 Table 1 for International Rates	

Both of the above referenced parties further agree to delete Table B.2.13 MCI Web Center on page B-36 of the Agreement and replace it with the following:

B.2.13 MCI Web Center

Supervisor Fee	$370 per individual supervisor
Full Time Agent	$325 per full-time individual (named) agent
Part Time Agent	ICB

Both of the above referenced parties further agree to addition of ImagePort Email service to Section A.2.8 on page A-54, entitled "ImagePort Fax Service" as delineated below:

ImagePort Email is designed to send documents in almost 60 formats, such as .doc, .pdf, .tif, or .html directly from an existing email client or PDA (personal digital assistant) to any fax machine worldwide. Once the final delivery attempt is made ImagePort will return a delivery acknowledgement to the sender's email or fax address.

Both of the above referenced parties further agree to addition of ImagePort Email service pricing to Table B.2.8 on page B-34, entitled "ImagePort Fax Service":

Description	Per Email	Non-Recurring Cost
ImagePort – Email Broadcast - Peak	$0.05	$0
ImagePort – Email Broadcast – Off Peak	$0.05	$0

Both of the above referenced parties further agree to addition of the following provision to the Agreement:

CONTRACTOR PRODUCT/SERVICES PROMOTIONS

Contractor, at his/her discretion, is allowed to sponsor product/services promotions during the Contract term or any extensions thereof under the following conditions:

1) Contractor is required to provide in writing to VITA, at least 5 days prior to the Contractor Product/Services Promotion, the dates of the promotion or the duration of the promotion to include the commencement date and the ending date; the acceptable writing may be e-mail, or correspondence via USPS or other, and
2) Contractor is required to identify in writing, the exact products/services covered in the Contractor Product/Services Promotion, and
3) Contractor is required to identify in writing, the pricing during the Contractor Product/Services Promotion or the percentage discount, and
4) All Contractor Product/Services Promotions are required to be available to all Authorized Users of the Contract, should the Contractor request a promotion that would be limiting, either through product configuration or quantities of products/services, the Commonwealth at its discretion, will not provide a written agreement. Both parties agree that Contractor Product/Services Promotions shall not target any one Authorized User, or a few Authorized Users, and
5) All Contractor sponsored Product/Services Promotions shall be mutually agreed to in writing, and Contractor shall be in breach of the Agreement in the absence of a writing from both parties; the writing may be e-mail or correspondence via USPS or other, and
6) In any instance of conflict between this clause, "Contractor Product/Services Promotions and the Agreement, this clause shall take precedence.
7) In any event wherein the Contractor proposes prices that are different than the Contract prices to any Authorized User, without first obtaining mutual agreement in the format as

identified herein, the Contractor shall be in breach of the Agreement and the Commonwealth shall have all remedies available under Contract and law.

8) The Commonwealth, at its discretion, may assist in advertising the Contractor product/services promotion. This assistance will consist of advertising space on its (Commonwealth's) various web sites, or other assistance at its (Commonwealth's) discretion

The foregoing is the complete and final expression of the parties' agreement to modify Contract VA-031104-MCI and cannot be modified, except by a writing signed by duly authorized representatives of both parties.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

PERSONS SIGNING THIS CONTRACT ARE AUTHORIZED REPRESENTATIVES OF EACH PARTY TO THIS CONTRACT AND ACKNOWLEDGE THAT EACH PARTY AGREES TO BE BOUND BY THE TERMS AND CONDITIONS OF THE CONTRACT.

MCI WORLDCOM COMMUNICATIONS, INC.	COMMONWEALTH OF VIRGINIA
BY:	BY:
NAME: Jerry A. Edgerton, Senior V.P.	NAME: Joe A. Parr
TITLE:	TITLE: Tech Contracts Manager
DATE: 3/22/04	DATE: 3/24/04

CONTRACT VA-031104-MCI
BETWEEN
THE COMMONWEALTH OF VIRGINIA
AND
MCI WORLDCOM COMMUNICATIONS, INC.

1. SCOPE OF AGREEMENT

This is an Agreement (the "Agreement") between the Commonwealth of Virginia ("Commonwealth") acting through the Virginia Information Technologies Agency (“VITA”) and MCI WORLDCOM Communications, Inc., (the "Contractor") or (“MCI”), a Delaware corporation having its principal place of business at 22001 Loudoun County Parkway, Ashburn, VA 20147 for the purchase of telecommunications network and related services (the "Services") pursuant to the Commonwealth's Request For Proposal #2002-033, dated November 25, 2002 (the "RFP") and the Contractor's response thereto, dated April 7, 2003.

2. INTERPRETATION OF AGREEMENT

Headings are for reference purposes only and shall not be considered in construing this Agreement.

The documents comprising this Agreement, and their order of precedence in case of conflict, are: (1) the negotiated Contract consisting of Terms and Conditions labeled 1 through 66 and Attachments A through M; (2) the Contractor's proposal submitted in response to the Commonwealth’s RFP #2002-033; (3)) the Commonwealth's RFP #2002-033 and (4) all TSOs, modifications, and Attachments executed in the future referencing this Agreement. The foregoing documents represent the complete and final Agreement of the parties with respect to the subject matter of this Agreement.

If any term or condition of this Agreement is found to be illegal or unenforceable, it shall be severed, and the validity of the remaining terms and conditions shall not be affected.

Nothing in this Agreement shall be construed as an express or implied waiver of the Commonwealth's sovereign or Eleventh Amendment immunity, or as a pledge of its full faith and credit.

3. ENTIRE AGREEMENT

This Contract, comprised of the documents as delineated above constitute the entire agreement between the parties with respect to the subject matter of this Contract. All prior agreements, representations, statements, negotiations and undertakings are hereby superseded with respect to Services acquired by the State under the terms and conditions of this Contract.

No other written documents regardless of form or content shall be executed by any agency or institution for Services acquired under this Contract unless signed by the Contracts Manager, VITA, or his alternate as designated by the Director, VITA.

4. APPLICABLE LAWS AND COURTS

This solicitation and any resulting Contract shall be governed in all respects by the laws of the Commonwealth of Virginia and any litigation with respect thereto shall be brought in the courts of the Commonwealth. The Contractor shall comply with all applicable federal, state and local laws, rules and regulations.

5. ANTI-DISCRIMINATION

By submitting their proposals, offerors certify to the Commonwealth that they will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Contracting Act of 1975, as amended, where applicable, the Virginians With Disabilities Act, the Americans With Disabilities Act and §2.2-4311 of the Virginia Public Procurement Act. If the award is made to a faith-based organization, the organization shall not discriminate against any recipient of goods, services, or disbursements made pursuant to the Contract on the basis of the recipient's religion, religious belief, refusal to participate in a religious practice, or on the basis of race, age, color, gender or national origin and shall be subject to the same rules as other organizations that Contract with public bodies to account for the use of the funds provided; however, if the faith-based organization segregates public funds into separate accounts, only the accounts and programs funded with public funds shall be subject to audit by the public body. (Code of Virginia, § 2.2-4343.1E).

In every Contract over $10,000 the provisions in A. and B. below apply:

A. During the performance of this Contract, the Contractor agrees as follows:

   1) The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment, except there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

   2) The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.

   3) Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting these requirements.

B. The Contractor will include the provisions of A. above in every subcontract or purchase order over $10,000, so that the provisions will be binding upon each subcontractor or vendor.

6. IMMIGRATION REFORM AND CONTROL ACT OF 1986

By submitting their proposals, offerors certify that they do not and will not during the performance of this Contract employ illegal alien workers or otherwise violate the provisions of the federal Immigration Reform and Control Act of 1986.

7. ETHICS IN PUBLIC CONTRACTING

By submitting their proposals, offerors certify that their proposals are made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other offeror, supplier, manufacturer or subcontractor in connection with their proposal, and that they have not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

8. TAXES

Sales to the Commonwealth of Virginia are normally exempt from State sales tax. State sales and use tax certificates of exemption, Form ST-12, will be issued upon request, and can be obtained online at http://www.tax.state.va.us/. Deliveries against this Contract shall usually be free of Federal excise and transportation taxes. The Commonwealth's excise tax exemption registration number is 54-73-0076K.

9. DEBARMENT STATUS

By submitting their proposals, offerors certify that they are not currently debarred by the Commonwealth of Virginia from submitting bids or proposals on Contracts for the type of goods and/or services covered by this solicitation, nor are they an agent of any person or entity that is currently so debarred.

10. QUALIFICATIONS OF OFFERORS

The Commonwealth may make such reasonable investigations as deemed proper and necessary to determine the ability of the offeror to perform the services/furnish the goods and the offeror shall furnish to the Commonwealth all such information and data for this purpose as may be requested. The Commonwealth reserves the right to inspect offeror's physical facilities prior to award to satisfy questions regarding the offeror's capabilities. The Commonwealth further reserves the right to reject any proposal if the evidence submitted by, or investigations of, such offeror fails to satisfy the Commonwealth that such offeror is properly qualified to carry out the obligations of the Contract and to provide the services and/or furnish the goods contemplated therein.

11. ANNOUNCEMENT OF AWARD

Upon the award or the announcement of the decision to award a contract over $30,000, as a result of this solicitation, the purchasing agency will publicly post such notice on the DGS/DPS eVA web site (www.eva.state.va.us) for a minimum of 10 days.

12. NONDISCRIMINATION OF CONTRACTORS

A bidder, offeror, or Contractor shall not be discriminated against in the solicitation or award of this Contract because of race, religion, color, sex, national origin, age, or disability or against faith-based organizations. If the award of this Contract is made to a faith-based organization and an individual, who applies for or receives goods, services, or disbursements provided pursuant to this Contract objects to the religious character of the faith-based organization from which the individual receives or would receive the goods, services, or disbursements, the public body shall offer the individual, within a reasonable period of time after the date of his objection, access to equivalent goods, services, or disbursements from an alternative provider.

13. ANTITRUST

By entering into a Contract, the Contractor conveys, sells, assigns, and transfers to the Commonwealth of Virginia all rights, title and interest in and to all causes of action it may now have or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular goods or services purchased or acquired by the Commonwealth of Virginia under said Contract.

14. PAYMENT

A. To Prime Contractor:

1) Invoices for items ordered, delivered and accepted shall be submitted by the Contractor directly to the payment address shown on the Contract. All invoices shall show the state Contract number, social security number (for individual Contractors) or the federal employer identification number (for proprietorships, partnerships, and corporations).

2) Any payment terms requiring payment in less than 30 days will be regarded as requiring payment 30 days after invoice or delivery, whichever occurs last. This shall not affect offers of discounts for payment in less than 30 days, however.

3) All goods or services provided under this Contract, that are to be paid for with public funds, shall be billed by the Contractor at the Contract price, regardless of which public agency is being billed.

4) The following shall be deemed to be the date of payment: the date of postmark in all cases where payment is made by mail, or the date of offset when offset proceedings have been instituted as authorized under the Virginia Debt Collection Act.

5) **Unreasonable Charges**. Under certain emergency procurements and for most time and material purchases, final job costs cannot be accurately determined at the time orders are placed. In such cases, Contractors should be put on notice that final payment in full is contingent on a determination of reasonableness with respect to all invoiced charges. Charges that appear to be unreasonable will be researched and challenged, and that portion of the invoice held in abeyance until a settlement can be reached. Upon determining that invoiced charges are not reasonable, the Commonwealth shall promptly notify the Contractor, in writing, as to those charges which it considers unreasonable and the basis for

the determination. A Contractor may not institute legal action unless a settlement cannot be reached within thirty (30) days of notification. The provisions of this section do not relieve an agency of its prompt payment obligations with respect to those charges that are not in dispute (*Code of Virginia,* § 2.2-4363).

B. To Subcontractors:

1) A Contractor awarded a Contract under this solicitation is hereby obligated:

(a) To pay the subcontractor(s) within seven (7) days of the Contractor's receipt of payment from the Commonwealth for the proportionate share of the payment received for work performed by the subcontractor(s) under the Contract; or

(b) To notify the agency and the subcontractor(s), in writing, of the Contractor's intention to withhold payment and the reason.

(c) The Contractor is obligated to pay the subcontractor(s) interest at the rate of one percent per month (unless otherwise provided under the terms of the Contract) on all amounts owed by the Contractor that remain unpaid seven (7) days following receipt of payment from the Commonwealth, except for amounts withheld as stated in (b) above. The date of mailing of any payment by U. S. Mail is deemed to be payment to the addressee. These provisions apply to each sub-tier Contractor performing under the primary Contract. A Contractor's obligation to pay an interest charge to a subcontractor may not be construed to be an obligation of the Commonwealth.

15. ASSIGNMENT OF CONTRACT

To the fullest extent permitted by law, the parties agree that Contractor's rights under this Contract shall not be assignable, in whole or in part, to any other party without the Commonwealth's written consent, and that any purported assignment or transfer without such consent shall be null and void. To the extent applicable law limits the rights of the parties to prohibit assignment or nonconsensual assignments, the effective date of the assignment shall be determined in accordance with applicable law. In such cases, the Contractor shall give the purchasing office prompt written notice of the assignment, signed by authorized representative of both the Contractor and the assignee. This written notice shall be on the Virginia Information Technologies Agency's "Assignment Notice / Payment Instructions" form and shall provide all information requested on that form. Copies of the form may be obtained from the VITA Contracts Manager.

In the event the commonwealth receives any notice from a third party claiming to be an assignee of any rights of the Contractor under this Contract, Contractor agrees that payment of other performance in respect of those right shall not be due until at least thirty days after the Commonwealth's receipt of the notice required by the above paragraph or receipt of a similarly executed notice confirming the absence or revocation of the purported assignment. VITA shall promptly notify the Contractor of any assignment notice it receives.

16. DEFAULT

In case of failure to deliver goods or services in accordance with the Contract terms and conditions, the Commonwealth, after due oral or written notice, may procure them from other sources and hold the Contractor responsible for any resulting additional purchase and administrative costs. This remedy shall be in addition to any other remedies which the Commonwealth may have.

17. INSURANCE

By signing and submitting a bid or proposal under this solicitation, the bidder or offeror certifies that if awarded the Contract, it will have the following insurance coverages at the time the Contract is awarded. For construction Contracts, if any subcontractors are involved, the subcontractor will have workers' compensation insurance in accordance with §§ 2.2-4332 and 65.2-800 et seq. of the *Code of Virginia*. The bidder or offeror further certifies that the Contractor and any subcontractors will maintain these insurance coverages during the entire term of the Contract and that all insurance coverages will be provided by insurance companies authorized to sell insurance in Virginia by the Virginia State Corporation Commission.

INSURANCE COVERAGES AND LIMITS REQUIRED:

a. Worker's Compensation - Statutory requirements and benefits.

2. Employers Liability - $100,000.

3. Commercial General Liability - $500,000 combined single limit. Commercial General Liability is to include Premises/Operations Liability, Products and Completed Operations Coverage, and Independent Contractor's Liability or Owner's and Contractor's Protective Liability. The Commonwealth of Virginia must be named as an additional insured when requiring a Contractor to obtain Commercial General Liability coverage.

4. Automobile Liability - $500,000 - Combined single limit.

18. DRUG-FREE WORKPLACE

During the performance of this Contract, the Contractor agrees to (i) provide a drug-free workplace for the Contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over $10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific Contract awarded to a Contractor, the employees of whom are prohibited

from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the Contract.

19. BREACH

The Contractor shall be deemed in breach of this Agreement if the Contractor (a) fails to make any Product or Service ready for acceptance testing, as identified in number paragraph 35 entitled "Testing and Inspection" herein, by the specified delivery date; (b) repeatedly fails to respond to requests for maintenance or other required service within the time limits set forth in this Agreement; (c) fails to comply with any other term of this Agreement and fails to identify in writing, a cure for such noncompliance within ten days (or such greater period as is acceptable to the Commonwealth) following Contractor's receipt of a Show Cause Notice identifying such noncompliance; or (d) fails to provide a written response to the Commonwealth's Show Cause Notice within ten days after receiving same.

The Contractor shall not be in breach of this Agreement if its default was due to causes beyond the reasonable control of, and occurred without any fault or negligence on the part of, both the Contractor and its subcontractors as defined in numbered paragraph 53 entitled "Force Majure", herein.

In the event of breach, in addition to any other remedies provided by law, the Commonwealth may cancel its obligations with respect to any or all unaccepted Products or Services. All costs for deinstallation and return of Products shall be borne by the Contractor. In no event shall any failure by the Commonwealth to exercise any remedy available to it be construed as a waiver of or consent to any breach.

20. NON-APPROPRIATION

All payment obligations under this Contract are contingent upon legislatively appropriated funds being available for the purpose of this Agreement. In the event finds are not available or cease to become available, the Commonwealth will terminate this Contract for the goods or services for which funds are not available.

If any purchases are to be supported by federal funding, and such funding is not made available, the Commonwealth may terminate this Contract for goods or Services dependent on such federal funds without further obligation.

21. CONTRACTUAL RECORDS

The Contractor shall make all Contractual books and records and other documents relating to matters under this Agreement available to the Commonwealth and its designated agents for purposes of audit and examination for a period of five years after final payment.

Contractual records include, but are not limited to, this Agreement and all executed Orders, Attachments, modifications, invoices, and correspondence between the parties to this Agreement.

22. PRIME CONTRACTOR RESPONSIBILITY

If the Contractor's proposal includes any Services to be supplied by another party, the Contractor agrees as follows:

a. The Contractor shall act as prime Contractor for the procurement and maintenance of the entire proposed configuration and shall be the sole point of contact with regard to all obligations under this Agreement.

b. The Contractor hereby represents and warrants that the Contractor has made such other party aware of the proposed use and disposition of the other party's Services, and that such other party has agreed in writing that it has no objection thereto.

23. PATENT/COPYRIGHT PROTECTION

Contractor, at its own expense, shall defend any suit brought against the Commonwealth for the infringement of patents, copyrights or trade secrets enforceable in the United States if the claim of infringement is alleged to relate to or arise from the Contractor's or Commonwealth's use of any services, Equipment, software, materials or information prepared, developed or delivered in connection with performance of this Agreement. In such suit, Contractor shall indemnify the Commonwealth, its agents, officers and employees for any loss, liability or expense incurred as a result of such suit.

The purchasing agency shall notify the Contractor of such suit within a reasonable time after learning of it and shall give the Contractor the full right and opportunity to conduct the defense of the suit, subject however to the requirements of Section 2.2-507 and 2.2-510 and Section 2.2-514 of the Code of Virginia or any successor statute. If principles of governmental or public law are involved, the Commonwealth may, at its option and expense, participate in the defense of the suit.

The Contractor shall not be required to indemnify the Commonwealth for liability arising solely out of the Commonwealth's own specifications or design or solely from the combination of Equipment or software furnished hereunder with any Equipment or software not supplied by the Contractor.

If, any Product or Service becomes, or in the Contractor's opinion, is likely to become, the subject of a claim of infringement, Contractor may, at its option, provide noninfringing substitutes that are satisfactory to the Commonwealth, or at Contractor's option and expense, may obtain the right for the Commonwealth to continue the use of such Product or Service.

If the use of such Equipment or software by the Commonwealth is prevented by permanent injunction or by Contractor's failure to procure the right for the Commonwealth to continue using the Equipment or software, the Contractor agrees to take back the infringing Equipment, software, materials or information and refund the pro-rated total un-used amount the Commonwealth has paid Contractor under this Agreement.

24. MODIFICATIONS

This Contract may be modified in accordance with Section 2.2-4309 of the Code of Virginia. Such modifications may only be made by the representatives noted below. No modification to this Contract shall be effective unless it is in writing and signed by the duly authorized representative of both parties.

No term or provision hereof shall be deemed waived and no breach excused unless such waiver or consent to breach is in writing. For purposes of the Contract, the only authorized representative for the Commonwealth shall be the VITA Contracts Manager, or his duly designated alternate. Any Contract issued on a firm fixed price basis may not be increased more than twenty five percent (25%) or $50,000.00 whichever is greater, without the approval of the Governor of the Commonwealth of Virginia or his authorized designee.

The only representatives authorized to modify this Agreement on behalf of the Commonwealth and the Contractor are shown below.

CONTRACTOR	**COMMONWEALTH OF VIRGINIA**
Jerry Edgerton	Contracts Manager
Senior Vice President	Virginia Information Technologies Agency
MCI	Richmond Plaza Bldg.,Lobby Level
1945 Old Gallows Road	110 South 7th Street
Vienna, VA 22182	Richmond, VA 23219

25. CONTRACTUAL DISPUTES

In accordance with Section 2.2-4363 of the Code of Virginia, Contractual claims, whether for money or other relief, shall be submitted in writing to the purchasing agency no later than sixty (60) days after final payment; however, written notice of the Contractor's intention to file such claim must be given to such agency at the time of the occurrence or beginning of the work upon which the claim is based. Pendency of claims shall not delay payment of amounts agreed due in the final payment. The purchasing agency shall render a final decision in writing within thirty (30) days after its receipt of the Contractor's written claim.

The Contractor may not invoke any available administrative procedure under Section 2.2-4365 of the Code of Virginia nor institute legal action prior to receipt of the purchasing agency's decision on the claim, unless that agency fails to render its decision within thirty (30) days after receipt of claim The decision of the purchasing agency shall be final and conclusive unless the Contractor, within six (6) months of the date of the final decision on the claim, invokes appropriate action under Section 2.2-4364, Code of Virginia or the administrative procedure authorized by Section 2.2-4365, Code of Virginia.

In the event of any breach by the Commonwealth, Contractor’s remedies shall be limited to claims for damages and Prompt Payment Act interest and, if available and warranted, equitable relief, all such claims to be processed pursuant to this Section. In no event shall Contractor’s remedies include the right to terminate any license or support services hereunder.

26. PERIODIC PROGRESS REPORTS/INVOICES

For Contracts requiring the submission of periodic Contract performance progress reports or program status reports, the offeror will include a section on involvement of small businesses and businesses owned by women and minorities. This section will specify the actual dollars Contracted to-date with

such businesses, actual dollars expended to-date with such businesses and the total dollars planned to be contracted for with such businesses on this Contract. This information shall be provided separately for small businesses, minority-owned businesses and women-owned businesses.

If the Contract does not require the submission of periodic progress reports, the offeror will provide the above required information on actual involvement of small businesses and businesses owned by minorities and women as part of their periodic invoices.

27. FINAL ACTUAL INVOLVEMENT REPORT

The Contractor will submit, prior to completion or at completion of the Contract and subject to final payment, a report on the actual dollars spent with small businesses and businesses owned by women and minorities during the performance of the Contract. At a minimum, this report shall include for each firm Contracted with and for each such business class (i.e., small, minority-owned, women-owned) the total actual dollars spent on this Contract, the planned involvement of the firm and business class as specified in the proposal, and the actual percent of the total estimated Contract value. A suggested format is as follows:

FIRM NAME ADDRESS AND PHONE NUMBER	TYPE GOODS/ SERVICES	ACTUAL DOLLARS	PLANNED DOLLARS	% OF TOTAL CONTRACT
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
	Totals for Business Class	_____	_____	_____

28. COMPLIANCE WITH FEDERAL LOBBYING ACT

A. Contractor shall not, in connection with this Agreement, engage in any activity prohibited by 31 U.S.C.A. Section 1352 (entitled "Limitation on use of appropriated funds to influence certain Federal Contracting and financial transactions") or by the regulations issued from time to time thereunder (together, the "Lobbying Act"), and shall promptly perform all obligations mandated by the Lobbying Act in connection with this Agreement, including, without limitation, obtaining and delivering to the Commonwealth all necessary certifications and disclosures.

B. Contractor is hereby advised that a significant percentage of the funds used to pay Contractor's invoices under this Agreement may be federal funds. Under no circumstances shall any provision of this Agreement be construed as requiring or requesting the Contractor to influence or attempt to influence any person identified in 31 U.S.C.A. Section 1352 (a) (1) in any matter.

C. A representative of Contractor shall sign the certification attached as Attachment "M" and deliver such certification to the Commonwealth simultaneously with the execution and delivery of this Agreement. Contractor shall have the certification signed by a representative with knowledge of the facts and shall fulfill the promises of undertakings set forth in the certification.

29. UNIVERSAL SERVICE FUND

The Contractor agrees to make available to all requesting USF participants, all products and Services as listed and priced herein. The Contractor agrees to provide the Products and Services directly to the USF participant, and to bill each USF participant directly, or identify to the Commonwealth a plan that is in concert with the administrator of the Universal Service Fund or any other higher authority. The Contractor agrees and understands that the responsibility for collection of all charges incurred, and the responsibility for resolving all Product and Service problems as well as administration of said Contract for USF participation shall be the sole responsibility of the Contractor in the absence of any mutual agreement reduced to a writing and executed by the authorized parties identified in this Agreement. Should this program allow the Contractor to bill VITA, then at the Contractor's discretion, the Contractor may invoice VITA as any other service provisioned under this Agreement.

If applicable, the Contractor warrants that it is qualified under applicable Federal Communications Commission and Virginia State Corporation Commission rules to apply for and receive Universal Service Fund allocations/disbursements for services provided pursuant to this Contract to agencies and entities and users which are eligible for those allocations/disbursements on behalf, and for the benefit, of those agencies and institutions. The Contractor also agrees to maintain those qualifications, and to assist agencies and entities in applying for and receiving these allocations/disbursements.

30. INVENTIONS AND COPYRIGHTS

The Contractor is prohibited from copyrighting any papers, reports, forms, or other materials developed under the term of this Contract and delivered to the Commonwealth during the term of this Contract. Additionally, the Commonwealth will be entitled to use, free from any additional financial restrictions, all goods or Services associated with the Contractor's deliverables under this Contract.

31. ADVERTISING/PUBLICITY

The Parties to this Agreement shall issue no public announcements, press releases, promotional materials or other forms of advertising concerning this Agreement without the prior written consent of the other party.

32. LIMITATION OF LIABILITY

To the maximum extent permitted by applicable law, the Contractor's liability under this contract for loss or damages to government property caused by the use of any defective or deficient supplies, products, equipment and/or services delivered under this Contract shall not exceed the greater of fifty million dollars ($50,000,000.00) or two times the total amount paid to the Contractor under this contract as of the date of the event or circumstance giving rise to contractor's liability. The Contractor will not be liable under this contract for any indirect, incidental, special or consequential damages, or damages from loss of profits, revenue, data or use of the supplies, equipment and/or services delivered under this contract. The above limitation per liability is per incident. The limitation and exclusion of damages in the foregoing sentences will not apply, however, to liability arising from: (a) personal injury or death; (b) defect or deficiency caused by willful misconduct or negligence on the part of the contractor; or (c)

circumstances where the contract expressly provides a right to damages, indemnification or reimbursement

33. ORDERING OFFICERS

The Commonwealth hereby appoints the following authorized Ordering Officers. The Ordering Officer(s) authority is limited to ordering the Services as identified herein, by written TSO(s) which reference this Contract, and does not include the ability to add any additional Services not set forth herein or to change or modify any prices, terms and or conditions agreed upon by the parties hereto. All changes to this Contract must be incorporated in a formal modification to this Contract by the parties identified in paragraph entitled "Modifications" of this Contract.

The Contractor is hereby notified that the Commonwealth will only make payment only against valid TSOs executed by an authorized Ordering Officer and confirmed by the Contractor. Contractor shall be advised in writing by the Contracts Manager, VITA or his appointed designee, of any change in the identity of Ordering Officers.

Ordering Officers are Phillip B. Johnson, Donald E. Spangler, Margaret A. Moran, and James L. Maverdes, Jr.

34. TELECOMMUNICATIONS SERVICES ORDER (TSO)

VITA and VITA identified DSPs (Direct Service Providers authorized by VITA) retains the exclusive authority to order all Services delineated herein. The Commonwealth will issue Telecommunications Services Orders (TSOs) to the Contractor for the Services identified herein. To be valid, the TSO must cite the Contract Number and must be signed by an Ordering Officer authorized to bind the Commonwealth contractually for telecommunications Services acquired under this Agreement. The TSO must identify the Service(s) to be acquired, the price for each Service, and the required Service Commencement Date for each Service.

Upon receipt of a TSO via either regular mail, facsimile, or electronically, the Contractor shall process the TSO and return a Service Order identifying the following information in the times frames specified herein and in concert with the vendor's response to the RFP 2002-033 or any other criteria negotiated and mutually agreed to:

1. A verification that the TSO is technically correct;
2. The date the Services will begin;
3. A verification of the charge for each item (Service) to be provided, and;
4. Other applicable administrative information necessary to deliver the Services requested on the TSO.

35. TESTING AND INSPECTION

The Commonwealth reserves the right to conduct any test/inspection it may deem advisable to assure Services conform to the specifications.

The Contractor shall provide the Services identified in each TSO in accordance with the technical specifications set forth herein and with all applicable standards of performance established by the RFP 2002-033, the Virginia State Corporation Commission, and the Federal Communications Commission. The Contractor's Services shall meet and maintain the quality (grade of services) for each type of Service as specified herein.

Contractor's Services shall be available 24 hours per day 7 days per week. Circuit availability shall be based upon the criteria for acceptance set forth in the appropriate Attachment hereto.

When Services ordered under any TSO have been certified by the Contractor as ready for testing, the acceptance test period shall begin. Contractor shall have maximum of ninety (90) days to meet the specified performance successfully for thirty (30) consecutive days. Upon completion of the acceptance period (or sooner if acceptable to VITA), the Commonwealth shall issue a written notification to the Contractor which confirms that all Services meet the levels required above and acceptance shall be deemed to have occurred.

36. INSTALLATION OF SERVICE RESPONSIBILITY

Except for specific limitations expressly stated in this Agreement, The Contractor shall be responsible for completing and providing all components, terminals, wiring, labeling and all other items necessary for installation and commencement of each ordered Service, including, without limitation, installation of any necessary access lines and switching.

37. INSTALLATION DATES

a. The Contractor shall deliver/install the requested Services ready for use, by the installation date (day, month, year) identified in an executed Telecommunications Service Order (TSO).

b. Any amendment by the State to this Contract or any part thereof, may require the establishment of a new mutually agreed to required delivery date. The State may delay the installation date by notifying the Contractor at least ten (10) days before the required installation date.

c. If the Services are not delivered/installed within the time specified in the TSO, the State reserves the right to cancel the TSO without further obligation.

38. SYSTEMS PERFORMANCE STANDARD (Individual TSOs)

Following acceptance of the initial Services, the Contractor shall continue to provide the same level of Services via individual TSOs and shall maintain such Services at the same availability and quality levels for the term of this Agreement. The procedures utilized for acceptance shall be used during the entire term of this Agreement by the Commonwealth for monitoring performance levels.

39. REMEDIES FOR SUBSTANDARD PERFORMANCE LEVELS

In addition to any other remedies provided by law and or Contract, the Contractor agrees to provide the Commonwealth with the credits for substandard performance or other outages which may occur during

the term of this Agreement. The Contractor agrees that the Commonwealth may deduct such credits from Contractor's monthly invoice(s) submitted to the Commonwealth.

40. ACCEPTANCE AND PAYMENT

Payment for Services under this Agreement shall be made pursuant to the Section entitled "PAYMENT" herein, and the Prompt Payment section of the Code of Virginia, and at the timely conclusion of VITA's completion of all validation tests to accept the billing and invoice information. VITA shall notify the Contractor in writing only when the billing and or invoice information submitted by the Contractor is rejected; the reasons therefore shall be listed by VITA. If rejection is not made within 30 days of receipt of the information by VITA, then the billing and or invoice information shall be deemed accepted.

ALL INVOICES SUBMITTED FOR PAYMENT SHALL BE SUBMITTED IN CHRONOLOGICAL ORDER BY THE PRIME CONTRACTOR. NO INVOICE SHALL BE ACCEPTED BY THE COMMONWEALTH THAT HAS BEEN SUBMITTED OUT OF CHRONOLOGICAL ORDER. IN ANY INSTANCE WHEREBY THE CONTRACTOR SUBMITS MULTIPULE INVOICES AT THE SAME TIME, THEN THE COMMONWEALTH SHALL HAVE THIRTY (30) DAYS TO VERIFY EACH INDIVIDUAL MONTHLY INVOICE.

VITA shall pay only against readable records that can be identified and validated on the tapes for billing back to the using agency at the facilities level. Bulk billing for facilities will only be permitted with the advance approval of the Controller, VITA. In circumstances when billing information is incomplete or missing, Contractor and VITA shall coordinate their efforts to identify the source of the problem, the proposed solution, and the expected time frame for the implementation of the solution. Notwithstanding the above requirements, Contractor agrees to maintain the master records from which magnetic tapes are generated for a period of no less than 90 days subsequent to the bill date.

Notwithstanding the above, the Commonwealth reserves the right in accordance with the paragraph Entitled "Billing Data", to make corrections to the Contractor's invoices which have been paid but are later found to contain errors.

41. TERMINATION

Notwithstanding any other provision of this Contract to the contrary including, but not limited to provisions relating to disputes, this Contract may be terminated by the Commonwealth, in whole or in part:

a. When the Director of the Department of Planning and Budget (DPB) makes a written determination that funds are not appropriated or otherwise available to support continuation of the Agreement. A determination by the Director, DPB that funds are not appropriated or otherwise available to support continuation of performance shall be final and conclusive. Termination to the extent required by such written determination shall be immediate.

b. When a court of competent jurisdiction finds that the Contractor is in violation of any law, ordinance, administrative rule, regulation, or order of any public authority having jurisdiction. This exercise of termination shall be without prejudice to any other right and cause

of action the Commonwealth may have against the Contractor. Termination shall be immediate upon delivery of notice of termination.

c. When the Commonwealth determines that such termination is in its best interest. This termination shall be effectuated by delivery of a termination notice to Contractor at least ninety (90) calendar days prior to the termination effective date, specifying the extent to which performance of work under the Agreement is terminated and the date upon which such termination becomes effective. The Contractor shall be compensated for Services provided up to the date of termination, and in no case shall Commonwealth or VITA be responsible for any termination, penalty, liquidated damages or any other charges.

d. When the Commonwealth determines the Contractor is in default by failing to perform a material term or condition of the Agreement and Contractor fails to identify in writing, a cure for such noncompliance within ten days (or such greater periods as is acceptable to the Commonwealth) following Contractor's receipt of a Show Cause Notice identifying such noncompliance.

e. The rights and remedies of the Commonwealth provided under this paragraph are not exclusive and are in addition to any other rights and remedies provided under law, in equity or under this Agreement.

42. INVOICE INFORMATION

Both the hard copy and electronic formats of the invoice information shall be rendered for each major category of Services covered by the invoice within thirty (30) calendar days from the end of the Contractor's billing cycle cut-off date. No invoice may include any costs other than those identified in this Agreement. Invoices shall provide at a minimum:

1. Type and description of the Service;

2. Individual TSO Number(s) for each item billed;

3. Charge for each Service, and;

4. Contractor's Federal Identification Number (FIN).

Payment for Services of less than one month's duration shall be prorated at 1/30th of the basic monthly charges for each calendar day.

All invoices shall be sent to the following address:

Virginia Information Technologies Agency
Attn: Controller
110 South 7th Street, 3rd Floor
Richmond, VA 23219

43. BILLING INFORMATION

Contractor shall accumulate billing information for each month for each major category of Service identified in RFP 2002-033 Section 4.5.2.2.

Contractor shall accumulate and provide "billing information" in both hard copy and magnetic tape formats in the time frames identified herein. Billing errors and omissions must be identified and corrected by the Contractor within 90 days, or written notification to VITA identifying the Services not billed and the extent thereof.

44. DATA FORMATS

Data formats utilized to transfer any management, billing and invoice information to VITA shall not be changed by the Contractor unless mutually agreed to 120 days in advance by VITA and Contractor.

45. FRAUDULENT AND UNAUTHORIZED USE

The Contractor shall prevent unauthorized use of the Services and may be liable for all costs incurred from unauthorized or fraudulent use. The Contractor will advise the Commonwealth of methods of minimizing unauthorized use resulting from the operation of the Commonwealth's System, Equipment, or facilities. The Contractor will monitor call attempts, including but not limited to, using access lines, calling cards and authorization codes, notify the Commonwealth of call attempts exceeding agreed upon parameters, and deactivated long distance access within fifteen minutes of a request by the Commonwealth. The Contractor will be expected to automatically and immediately activate fraud containment measures when agreed upon parameters are exceeded and notification of the Commonwealth is delayed or not possible.

46. GOVERNMENT ORGANIZATIONAL CHANGES / NOVATION

Upon written notification to Contractor, VITA or any successor Agency or Organization may assign this Contract with all obligations and duties thereunder to any public or private entity. In the event of such assignment, VITA or its successor, as the case may be, shall no longer be a party to, or have any further right or obligation under this Contract.

47. ACCESS SERVICE

The Commonwealth, at any time during the Initial Term or any extension thereof, at its option, may determine that it is in the best interest of the Commonwealth to be responsible for obtaining access Service from the local provider(s) or other means as necessary. The Commonwealth may propose to modify the Contract for any changes to Access Services that it deems to be in the best interest of the Commonwealth, at any time. The Commonwealth shall designate the routing patterns and methods to be used for access to the Commonwealth-designated carrier.

48. CONTRACT OPTION TO INCREASE OR DECREASE SERVICES

VITA may, at any time increase or decrease the quantity of Services to be provided hereunder, with corresponding increase or decrease in the total monthly bill. The VITA Ordering Officer(s) identified in this Agreement may exercise this option from time to time and at any time during the term of this Agreement by executing and delivering written TSOs, subject to the constraints imposed in the paragraph entitled "Ordering Officers". Notwithstanding anything to the contrary in this Agreement, no charge of any kind shall be incurred as a result of decreasing the quantity of or otherwise terminating any Service procured hereunder.

49. OPERATIONAL RESTRICTIONS

The Contractor warrants that, except as specifically agreed to in writing, all Services may be used at any time for the convenience of the Commonwealth (exclusive of time required for preventive maintenance, remedial maintenance, and approved engineering changes). Without limiting the foregoing, the Contractor warrants that there are no restrictions as to consecutive hours or length of personnel shifts.

50. PERFORMANCE BOND

By signing this Contract, the Contractor agrees to furnish VITA with a performance bond in the amount of $1,000,000.00 (One Million Dollars). The performance bond shall be delivered at the time the Contract has been signed by the Contractor and presented to the Commonwealth for signature approvals and a power of attorney satisfactory to the Commonwealth shall have been filed in the office of the Clerk of the Richmond Circuit Court. The performance bond must be in the form of a cashier's check, a certified check, or surety bond using the Commonwealth's standard form for Performance Bond (Form DGS-41-053). If a surety bond is used, the Surety Company must be approved by the Virginia State Corporation to transact business in the Commonwealth. The performance bond shall be made payable to the Commonwealth of Virginia, Virginia Information Technologies Agency, and shall be effective throughout the entire term of the Contract and any renewal thereof, if an option to renew is exercised.

The Contractor's performance bond may be forfeited to VITA, in whole or in part, in accordance with the terms of this Contract or as otherwise legally permitted.

Any change in work, extension of time, or termination of this Contract shall in no way release the Contractor or its surety from any of their obligations. The performance bond shall contain a waiver of notice of any change in work, extension of time, or termination to the Contract.

Notwithstanding any other provision relating to the beginning of the term, the Contract will not become effective until the required performance bond is delivered to and approved by:

Virginia Information Technologies Agency
Attn: Contracts Manager
110 South 7th Street, East Lobby
Richmond, VA 23219

51. CONTRACTOR ACCESS TO COMMONWEALTH LOCATION/S

Commonwealth shall grant to Contractor personnel such access to the Commonwealth location as may be necessary or appropriate for Contractor to perform its obligations under this Agreement, subject to all security issues. For any individual Commonwealth location, the Contractor may be required to undergo additional security procedures that may include but not be limited to; records verification, submission of photos and or fingerprints, etc. The Contractor may at any time, for any Commonwealth location, be required to undertake the execution and completion for each individual employee, the requirement of the submission of additional forms that the Commonwealth would consider reasonable for security measures. These forms may include the individual employee's agreement that all Commonwealth information that is garnered while at the Commonwealth site is confidential and proprietary. Any unauthorized release of proprietary information by the Contractor or Contractor's employees shall constitute a breach of this Agreement.

52. CONFIDENTIALITY OF INFORMATION

CONTRACTOR AGREES TO OBSERVE COMPLETE CONFIDENTIALITY WITH RESPECT TO ALL ASPECTS OF ANY CONFIDENTIAL INFORMATION, PROPRIETARY DATA AND/OR TRADE SECRETS AND ANY PARTS THEREOF, WHETHER SUCH CONTENTS ARE THE COMMONWEALTH'S OR ANY USERS' OR OTHER MANUFACTURER, CONTRACTOR OR DISTRIBUTOR WHEREBY CONTRACTOR OR ANY CONTRACTOR'S PERSONNEL MAY GAIN ACCESS WHILE ENGAGED BY THE COMMONWEALTH OR WHILE ON COMMONWEALTH'S OR USER PREMISES. REVEALING, COPYING OR USING IN ANY MANNER WHATSOEVER ANY SUCH CONTENTS WHICH HAVE NOT BEEN AUTHORIZED BY THE COMMONWEALTH OR USER ARE STRICTLY PROHIBITED. THE RESTRICTIONS HEREIN SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT FOR ANY REASON AND SHALL CONTINUE IN FULL FORCE AND EFFECT AND SHALL BE BINDING UPON THE CONTRACTOR, HIS AGENTS, EMPLOYEES, SUCCESSORS, ASSIGNS, SUBCONTRACTORS OR ANY PARTY CLAIMING AN INTEREST IN THIS AGREEMENT ON BEHALF OF OR UNDER THE RIGHTS OF CONTRACTOR FOLLOWING ANY TERMINATION. CONTRACTOR SHALL ADVISE ALL CONTRACTOR'S AGENTS, EMPLOYEES, SUCCESSORS, ASSIGNS AND SUBCONTRACTORS WHICH ARE ENGAGED BY THE COMMONWEALTH OF THE RESTRICTIONS, PRESENT AND CONTINUING, SET FORTH HEREIN. CONTRACTOR SHALL DEFEND AND INCUR ALL COSTS, IF ANY, FOR ACTIONS WHICH ARISE AS A RESULT OF NON-COMPLIANCE BY CONTRACTOR, HIS AGENTS, EMPLOYEES, SUCCESSORS, ASSIGNS AND SUBCONTRACTORS REGARDING THE RESTRICTIONS HEREIN.

53. FORCE MAJURE

Any delay or failure of either party to perform its obligations hereunder shall be excused if, and to the extent that it is directly caused by an event or occurrence beyond the reasonable control of the party and without its fault or negligence, such as, by way of example and not by way of limitation, acts of God, action by an Governmental authority (whether valid or invalid), fires, floods, windstorms, explosions, riots, natural disasters, wars, sabotage, or court injunction or order Agreement, or any Order issued pursuant hereto; provided that written notice of such delay (including the anticipated duration of the delay) shall be given by the affected party to the other party within ten (10) days. During the period of such delay or failure to perform by Contractor, the Commonwealth, at its option, may purchase goods and Services from other sources and reduce its schedules to Contractor by such quantities, without any

liability to Contractor, or have Contractor provide the goods from other sources in quantities and at times requested by the Commonwealth and at the price set forth in this Agreement. If requested by the Commonwealth, Contractor shall, within ten (10) days of such request, provide adequate assurances that the delay shall not exceed thirty (30) days. If the delay lasts more than thirty (30) days or Contractor does not provide adequate assurance that the delay will cease within thirty (30) days, the Commonwealth may immediately cancel the Agreement, or any portion thereof, without any further liability to Contractor.

54. TECHNOLOGY IMPROVEMENTS

The Commonwealth acknowledges the Contractor's right to enhance, but not to degrade, the attributes of any Service provided at any time under this Agreement. The Contractor will provide VITA with written notification of any known hardware, firmware, and software changes, as well as any changes to procedures to be followed by the Commonwealth, at least 60 days in advance of the Contractor's scheduled implementation of such changes, if such changes are of a type that may affect the features, functionality or method of operation or delivery of any Service offered under this Agreement. Upon VITA's request, the Contractor shall promptly provide all documentation needed to evaluate the impact of such changes. There shall be no charge for the implementations of such changes, nor shall the cost of the Service be affected thereby.

It is the intent of the Commonwealth that this Agreement migrate with the technology as it evolves during the Contract Term. Upon both parties mutual agreement, new technologies will be added to this Agreement during the Contract Term. Any mutual agreement shall be reduced to a writing as delineated in the Modifications Clause, herein.

55. TYPE OF CONTRACT

The rates and charges for Telecommunications Services, and any related Services delivered in connection with this Agreement shall be provided on a firm fixed price basis over the term of this Contract. This is a requirements type Contract and the Commonwealth has offered no guarantees of the quantities of Services purchased hereunder.

56. TERM

This Agreement shall take effect on the date of its final execution by both parties, and shall continue for a period of four (4) years (initial Term). At the sole option of the Commonwealth, the Agreement may be extended for six (6) additional one-year periods. The Commonwealth may exercise this right by notifying the Contractor a minimum of thirty (30) days before the then current expiration date of this Agreement.

57. SERVICES PHASE-OUT PERIOD

The Contractor recognizes that the Services provided hereunder are vital to the Commonwealth and must be continued without interruption. Therefore, the Contractor shall furnish phase-out Services after

the expiration of any current term for a 60 day period to allow implementation to a new Contract by the Commonwealth. The phase-out Services shall be furnished on terms and conditions and at Rates and Charges that are the same as those in effect hereunder immediately prior to such termination. Should the Commonwealth require that phase-out Services be furnished after the sixty-day period as described above, then these phase-out Services shall be furnished on a month-to-month basis, not to exceed twenty-four (24) months, at prices to be determined by the Contractor but limited to no more than a 6% increase, and furnished on all other terms and conditions as are in effect hereunder immediately prior to this phase-out period.

58. MOST FAVORED CUSTOMER AND PRICE PROTECTION

Contractor agrees and warrants that for all Services priced pursuant to this Contract, the prices are, and will continue to be at or below Contractor's (or any agent thereof) lowest price offered to any Virginia county, city or local government, school district, special service district, any educational institution or any subdivision /agency thereof.

For any occurrence whereby the Contractor (or any agent thereof) is found to be charging any entity listed above, less than as is identified on this Agreement, the Contractor shall immediately lower the prices in this Agreement to a level equal or below that charged on another agreement.

59. ON-LINE ACCESS

The Contractor shall provide the Commonwealth with the ability to enter and track on-line orders for network Services, trouble reports, and the status and inventory or Services

60. VITA APPROVAL AND CONTRACTING AUTHORITY

The Contractor recognizes that VITA, by statute, reviews and approves purchases of telecommunications services for agencies and institutions of the Commonwealth. The Contractor agrees that the Contractor will not provide such services to Authorized Users under the provisions of this Agreement, unless VITA has given its advance, written approval of such procurement, either individually or by category of service or recipient. By law, any payment for materials or services ordered by public officials who lack actual authority to make such purchases may be recovered at any later date by the Commonwealth or by the affected Authorized User.

61. OTHER RATES

This Agreement in no way prevents the Commonwealth from acquiring services as permitted under State Corporation Commission and Federal Communications Commission Regulations as they apply to the Commonwealth or under separate Agreements with other vendors.

62. DISASTER RECOVERY SERVICE

It is the understanding of the parties that additional services, not specified in this Agreement, shall be made available to the Commonwealth for disaster recovery purposes on terms and conditions to be mutually agreed to by both parties and reduced to a modification to this Agreement.

63 CONTRACT DOCUMENTS

Nothing contained in this Contract is considered Proprietary or Confidential or containing trade secrets as determined by the Contractor. All Contractor provided information, in response to any Commonwealth's request in the performance of this Contract, shall not contain any proprietary or Confidential information. The Contractor hereby irrevocably withdraws any claim that any future document provided to the Commonwealth in response to actions under this Contract, should be treated as proprietary, confidential or contain trade secret information.

All Contractor documents now or later comprising the Contract may be released in their entirety under the Virginia Freedom of Information Act, and Contractor agrees that any confidentiality or similar stamps or legends that are attached to any future documents or information may be ignored to the extent they claim confidentiality beyond that permitted herein.

64. WARRANTY OF SERVICES

The Contractor warrants that the voice services provided under this Agreement will be at a minimum of P.01 Busy Hour grade of service and will be provided and performed in accordance with all applicable standards of performance established by this RFP #2002-033, the Virginia State Corporation Commission, and the Federal Communications Commission. Any failure to comply with such standards which interferes with the Commonwealth's ability to communicate via the Services provided by the Contractor will be regarded as a material breach entitling the Commonwealth to terminate this Agreement, after notice by the Commonwealth and a reasonable opportunity to cure by the Contractor,

without termination charges or other liability except for Services already provided. The Commonwealth reserves the right to negotiate for such Services with any other vendor of its choice.

65. CONTENT DISCLAIMER

The Contractor exercises no control over and accepts no responsibility for the content of the information passing through the Network, Service Equipment, or an Internet Service. The Contractor specifically denies any responsibility for the accuracy or quality of information obtained through the Network, Service Equipment, or an Internet Service. Use of any information obtained via the Network, Service Equipment, or an Internet Service is a t the Commonwealth's own risk.

66. NOTICES

All Notices issued under this Agreement shall be in writing and be sent certified mail, receipt requested, to the individuals identified below for the Commonwealth and Contractor. Notices may be sent via e-mail or hand delivered, however originals shall be certified mailed as above.

COMMONWEALTH OF VIRGINIA
Contracts Manager
Virginia Information Technologies Agency
Richmond Plaza Bldg.,Lobby Level
110 South 7th Street
Richmond, VA 23219

MCI
Mr. Kenneth P. Lyons
4951 Lake Brook Drive
Suite 200
Richmond, VA 23060

PERSONS SIGNING THIS CONTRACT ARE AUTHORIZED REPRESENTATIVES OF EACH PARTY TO THIS CONTRACT AND ACKNOWLEDGE THAT EACH PARTY AGREES TO BE BOUND BY THE TERMS AND CONDITIONS OF THE CONTRACT.

CONTRACTOR

BY: _____

NAME: Jeffy A. Edgerton, Senior V.P.

TITLE: _____

DATE: 10/31/2003

COMMONWEALTH OF VIRGINIA

BY: Joe A Parr

NAME: Joe A. Parr

TITLE: Tech Contracts Manager

DATE: 11/7/03

Attachment A
Service Descriptions

This Attachment provides a description of the services that MCI will provide to the Commonwealth of Virginia under the COVANET contract. For ease of reference, Attachment B is organized so that pricing corresponds to service descriptions.

A.1 COVANET Data Services

MCI provides statewide coverage for the COVANET data services described in this Section using services that are provided over MCI's commercial network (for examples, private lines, EDI, Internet) as well as frame relay and ATM services provided via a private network dedicated to the Commonwealth of Virginia. In addition, MCI's public ATM and frame relay services are available for select applications.

A.1.1 Private Line Services:

A.1.1.1 Digital Data Service (DDS)

Digital Data Service (DDS) is a point-to-point, full-duplex terrestrial digital private line service that operates at synchronous data speeds of 9.6 and 56 kbps.

A.1.1.2 DS0 Service

DS0 service provides a single channel operating at a speed of 64 kbps. DS0 is ideal for Commonwealth applications that do not require the high performance of DDS, or the bandwidth of full T-1 access.

A.1.1.3 Analog/Voice Grade Private Line Service

a. Point-to-Point Analog Data Service
b. Multi-Point Analog Data Services
c. Private Line Voice

Voice Grade Private Line Service is a dedicated analog private line service for analog and low bandwidth connections up to 19.2 Kbps. MCI's analog private lines can be used to support the following service applications.

- Automatic Ring Down
- Tie Line
- Off-Premise Extensions

- Foreign Exchange
- Analog Data Application
- Voice Applications

A.1.1.4 Terrestrial Digital Service (TDS 1.5)

Terrestrial Digital Service (TDS 1.5) provides a point-to-point private line transporting a full duplex signal at the rate of 1.544 Mbps. TDS 1.5 service is ideal for the Commonwealth's high-speed voice, data and imaging applications that require high-quality, economical private line service.

A.1.1.5 Terrestrial Digital Service 45 (TDS 45)

Terrestrial Digital Service 45 (TDS 45) is a dedicated, point-to-point terrestrial private line service that supports high-speed capacity requirements. The TDS 45 service supports transmission of full-duplex signals over terrestrial facilities at 44.736 megabits per second.

A.1.1.6 SONET Services

a. Private Line Ethernet Service

Private Line Ethernet Service is an end-to-end dedicated IntraLATA Private Line SONET service employing Ethernet as the access and termination methods. The service is available in speeds of STS-1 (55Mbps), STS-3 (155Mbps), and STS-12 (622Mbps).

b. Synchronous Optical Network (SONET) Private Line Service

Synchronous Optical Network (SONET) Private Line Service offers a point-to-point transport services with speeds up to 155 Mbps and automatic restoration capability in under 100 milliseconds (ms) range.

A.1.2 Switched Data Services

Switched Digital Services (SDS) provides data transmissions in increments of 56/64 Kbps (higher speeds up to 1.544 Mbps are also available). Although SDS uses the same implementation and billing mechanisms as COVANET voice services, SDS is transmitted over separate clear channel routes in the MCI switched network. These routes are groomed to enhance SDS transmission quality. Customers claim bandwidth by using a single network call with multi-rate bearer services (MRBS) or fixed rate (H0, H11) capabilities (without inverse multiplexing).

MCI switches are programmed to differentiate between voice calls and switched digital calls based on the bearer capability contained in the setup message of each call. If the bearer capability parameter indicates that the call is a switched digital call, the MCI

switch sends it over a Digital Data Network (DDN), which is deployed specifically to handle such calls.

The DDN is an end-to-end 64 Kbps digital clear channel network, which overlays the MCI voice network. The DDN network in many ways has the same qualities as a private clear channel network. However, DDN does not have compression and echo cancellation techniques, which are often deployed on longer routes to enhance voice quality. Such techniques would be detrimental to the quality of switched digital applications such as video.

A.1.2.1 Network-Based Wideband Services

Network-based wideband data service is the provision of N x 64 Kbps services at the network level, with channel aggregation handled by the network rather than by CPE. This type of call is recorded on a single call record, which indicates the bandwidth used for the call. This enables the billing of these calls based on bandwidth, and not simply N times the 64 Kbps price.

For wideband services, the customer will always be required to use PRI access. BRI access lines do not support wideband calling. BRIs can only support individual 56 or 64 Kbps calls, aggregated by CPE.

Network-based wideband data services are currently available in the U.S. These services include H0, H11 and MRBS.

- **H0** – H0 is the ISDN standard for the provisioning of 384 Kbps service, without IMUXing, via contiguous bandwidth on an ISDN PRI access line. The CPE places one call and the call is allocated to contiguous channels on the PRI. The six channels used must be contiguous and must be in fixed positions in the T-1 carrier, i.e. 1-6, 7-12, 13-18, or 19-24.

- **H11** – H11 is the ISDN standard for provisioning of 1.536 Mbps service, without IMUXing, via contiguous bandwidth on a PRI access line. H11 requires a PRI with all 24 channels free. Two PRI access lines are required to launch an H11 call.

- **MRBS** – MRBS or Multi-rate ISDN is the provision of any multiple of N x 64 services at the network level, without IMUXing by the CPE. MRBS calls can be launched in any increment of 64 Kbps up to 1.536 Mbps.

A.1.3 Integrated Services Digital Network (ISDN)

ISDN allows for the integration of voice, video, and data services on one MCI dedicated access loop. ISDN access allows for applications such as Calling Station Identifier (CSI) and Automatic Number Identification (ANI). ISDN access to MCI's SDS services is available as described in A.1.2. Below are some technical specifications of MCI's ISDN PRI service.

ISDN Features:

a. Calling Station Identification (CSI) Delivery

CSI allows customers with PBX or Centrex systems to identify the originating extension (calling station) of each outbound call.

b. Automatic Number Identification (ANI) Delivery

ANI is used to initialize the database query that brings up a customer's records on the telephone agent's screen as the call is answered.

c. Dialed Number Identification Service (DNIS)

DNIS, which is also a feature of toll-free, provides the number the caller dialed to reach the attached computer telephone system. DNIS enables one trunk group to serve multiple applications.

d. SuperTrunking

SuperTrunking allows customers to group basic PRIs together and have calls flow from PRI to PRI when an all circuits busy condition is reached on an individual PRI line.

e. SubTrunking

SubTrunking is an MCI term used to describe the capability to divide an ISDN PRI into smaller trunk groups, or sub-trunks. Each sub-trunk comprises a specific range of circuits.

SubTrunking allows customers to combine multiple services on an individual PRI, while segregating the traffic from each service to ensure one or more services do not monopolize the PRI.

f. Non-Facility Associated Signaling (NFAS)

NFAS uses one D channel to control multiple PRIs. Usually for ISDN PRI service, a DS1 is processed and configured as a PRI trunk group consisting of one D channel (for

signaling) and 23 B channels. However, in certain cases, one D channel can also control additional B channels in DS1 increments.

g. Network Quality User Exchange Signaling Technology (N-QUEST)

N-QUEST is MCI's product for corporate networks and call centers specific to ISDN, referred to in the industry as UUS or UUI (User-to-User Signaling or Information). N-QUEST enables PBXs or ACDs to exchange proprietary information via a switched network without the need for private lines. This ability is required for several applications such as screen-pops, call routing for call centers, and centralized voice mail for corporate networks.

h. Network Call Transfer (NCT)

NCT allows MCI customers to move call transfer functions from their CPE to the MCI network. NCT provides the capability to transfer a MCI OnNet or toll-free call from one location to another MCI OnNet or toll-free service location, with the transfer being accomplished in the network.

A.1.4 COVANET Frame Relay Services

COVANET frame relay will allow virtual circuits to be connected between access facilities of different types, speeds and technologies. COVANET supports both FRF.5 and FRF.8 giving the subscribers the ability migrate smoothly to new technologies as their requirement's dictate. A subscriber can have Frame Relay, ATM, and IP services within his enterprise network.

Frame Relay Features

- Access Options
- Intra/InterLATA PVCs
- Priority PVCs
- CIR Options
- Interworking Standards
- Internet access
- COVANET Private IP access
- Extended Coverage
- Installation Assist
- Interstate Connections

a. Access Options

Within the limits of the access circuits ordered and provisioned for the customer end points involved in any virtual circuit, COVANET frame relay will provide bandwidth-on-

demand supporting the "bursty" nature of the traffic generated by customer's data network. COVANET frame relay supports several dedicated access options at speeds of 56 kbps, fractional DS-1, DS-1, NxDS-1, and DS-3 from the customer's premise to the COVANET frame relay network, as shown in Table A.1.4.

Table A.1.4 Dedicated Access Line Rates

Access Type	Channel Speed
DDS/DSO	56 kbps
Fractional DS-1 (N x DS0)	64 kbps to 1472 Mbps
DS-1	1.536 Mbps
N x DS-1	3/4.5/6 Mbps
DS-3	45 Mbps
DSL	Up To 768 Kbps

b. IntraLATA/InterLATA PVCs

The Commonwealth has the option to select whether the PVC is InterLATA or IntraLATA. There will be no cost for IntraLATA PVCs. There is a cost for InterLATA PVC's and there is a cost for all IP and Internet PVC's regardless if they cross LATA boundaries.

c. Priority PVCs

Priority Frame allows MCI to specify multiple elements of quality in a frame relay service, including throughput/speed, delay and frame loss. This technology extends ATM-like QoS to frame relay, supporting end-to-end WAN service guarantees.

The Priority Frame service class system enables a portfolio of service offerings. The following two service classes comprise the service class system:

- Priority 1 (Real Time Variable Frame Rate)
- Priority 2 (Non-real time Variable Frame Rate)

Priority One/Real Time Variable Frame Rate (rtVFR) service provides committed bandwidth, low delay and frame loss. This enables MCI to create SLAs with specified delivery characteristics for delay-sensitive traffic like SNA and voice. Priority Two/Non-Real Time Variable Frame Rate (nrtVFR) service provides committed bandwidth, higher delay and low frame loss. This enables LAN-to-LAN and business class Internet/Intranet access services.

Through its Priority Frame technology, MCI provides absolute quality guarantees for frame relay. Priority Frame moves frame relay from a commodity service to a value-added service that supports new applications with different network delivery requirements.

d. CIR Options

MCI provides a wide variety of CIR options. PVCs will have the ability to burst up to two times the CIR or the port access speed. CIR will be provisioned with assigned priorities/QoS. The priority selected by the subscriber is dictated by their requirements

f. Frame Relay to ATM Network Interworking standard (FRF.5)

The Frame Relay to ATM Network Interworking standard (FRF.5) enables two frame relay devices or networks to communicate across an ATM backbone. The frame relay to ATM Interworking technology responds to the need for increased bandwidth by allowing enterprise frame relay networks to seamlessly scale up to high-speed ATM networks.

g. Frame Relay to ATM Service Interworking standard (FRF.8)

The Frame Relay to ATM Service Interworking standard (FRF.8) enables a frame relay user device to connect to an ATM user device over a common WAN backbone. Frame Relay to ATM Service Interworking enables seamless communication between ATM and frame relay networks or end-user devices.

h. Internet access

COVANET Frame Relay users may gain access to the Internet through the COVANET Internet Gateway by mapping a PVC to one of the gateway routers. Users looking for an added level of redundancy in their Internet services may wish to install a second PVC to the second Internet gateway router at no additional cost.

i. COVANET Private IP access

COVANET Frame Relay users may gain access to the COVANET Private IP network by mapping a PVC to the Private IP network. This will give the user the ability to take advantage of the COVANET Private IP services as described in Attachment J.

j. Extended Coverage

Through a partnership with NTELOS, MCI extends the COVANET footprint to include more POPs and network in the regions southwest of Richmond.

NTELOS provides both DS-1 and DS-3 special access. Using this method the customer's router is directly connected to the MCI switching platform, there is no Frame Relay switching performed in the NTELOS network and therefore no Network-to-Network connection. NTELOS provides this access using two methods:

- NTELOS owned facilities – In this case the access is totally owned and operated by NTELOS. They have facilities into the location requiring services.

- Type 2 – In this access method, NTELOS does not have facilities to the location requesting service. They are collocated with the Local Exchange Carrier and are interconnected at that point. The connectivity for this type access is MCI COVANET Node-NTELOS-Local Exchange Carrier-Commonwealth location.

k. Install Assist for Customer Equipment

MCI VNOC engineers will provide assistance to the Commonwealth upon request to initially configure routers during the installation of Frame Relay services.

l. Interstate Connections

MCI provides the Commonwealth the ability to extend the reach of COVANET beyond the borders of Virginia. If an agency requests Frame Relay connectivity to an organization outside of Virginia, a Telecommunications Service Request should be submitted through the normal channels, this will be handled by MCI in the following manner. MCI will provision a private line circuit from the requested location the nearest COVANET node.

A.1.5 COVANET Asynchronous Transfer Mode (ATM) Service

COVANET ATM will allow virtual circuits to be connected between access facilities of different types, speeds and technologies. COVANET supports both FRF.5 and FRF.8 giving the subscribers the ability migrate smoothly to new technologies as the requirements dictate. A subscriber can have Frame Relay, ATM, and IP services within his enterprise network.

ATM Features

- Access Options
- SCR/PCR Options – Cost Free PVCs
- Numerous end-to-end QoS options
- Interworking standards
- Internet access
- COVANET Private IP access
- Extended Coverage
- Install Assist for Customer Equipment
- Interstate Connections

a. Access Options

Within the limits of the access circuits ordered and provisioned for the customer end points involved in any virtual circuit, COVANET ATM will provide bandwidth-on-demand supporting the "bursty" nature of the traffic generated by customers' data

network environments. COVANET ATM supports several dedicated access options at speeds of DS-1, NxDS-1, DS-3, and OC-3 from the customer's premise to the COVANET ATM network.

Table A.1.5 Dedicated Access Line Rates

Access Type	Channel Speed
DS-1	1.536 Mbps
IMA (NxT1)	3 Mbps, 4.5 Mbps, and 6 Mbps
DS-3	45 Mbps
OC-3	155 Mbps

b. SCR/PCR Options –

MCI provides a wide variety of SCR/PCR options. With the exception of Internet and CBR PVCs there are no cost components associated with PVCs on ATM.

c. Acceptable Applications

Table A.1.5.1 summarizes the applications and the service categories that will be assigned for each application. The QoS for applications that are not identified in Table A.1.5.1 will be assigned a QoS through mutual agreement between MCI and VITA.

Table A.1.5.1 Applications and Service Categories

Applications	Service Categories
Uncompressed video/Audio	CBR
Video distribution/broadcast	CBR
Circuit Emulation Services	CBR
Compressed Audio and Video	V BR-rt
Interactive Multimedia	VBR-rt
IP-based applications	VBR-nrt
Critical data/SNA	VBR-nrt
Frame Relay Interworking	VBR-nrt
Remote Terminal	UBR
Internet	UBR
E-mail	UBR

d. Numerous end-to-end QoS options

MCI's COVANET ATM provides End-to-End QoS services to anywhere in the Commonwealth. This includes constant bit rate (CBR), variable bit rate-real time (VBR-rt), variable bit rate-non real time (VBR-nrt), and unspecified bit rate (UBR). MCI will advise the subscriber on the appropriate QoS that will meet performance requirement of his application. A range of peak cell rate (PCR) and sustained cell rate (SCR) values are

supported for these services. COVANET ATM services are described in more detail below.

e. Constant Bit Rate (CBR)

CBR service is intended to provide customers with service characteristics similar to private lines. CBR service is most suitable for transporting legacy applications where traffic is sensitive to cell loss and delay variation found on today's private line applications or potentially for customers desiring very high quality voice transport.

f. Variable Bit Rate - Real Time (VBR-rt).

The real-time VBR service category is best suited to support for time-sensitive applications, (e.g., those requiring tightly constrained delay and delay variation), as would be appropriate for voice and video applications. Sources are expected to transmit at a rate, which varies with time. The source can be described as "bursty." Traffic parameters are Peak Cell Rate (PCR), Sustainable Cell Rate (SCR) and Maximum Burst Size (MBS). Cells, which are delayed beyond the value specified by Cell Transfer Delay (CTD), are assumed to be of significantly less value to the application. VBR-rt service will support statistical multiplexing of real-time sources.

g. Variable Bit Rate - Non Real Time (VBR-nrt).

VBR-nrt service is intended to provide customers with high-speed frame relay or multi-protocol like service suitable for LAN internetworking. For example, this class can serve file transfers, where some delay is acceptable but cell loss cannot be tolerated.

h. Unspecified Bit Rate (UBR).

UBR service provides customers with data service suitable for use in non-timing sensitive applications. Information is transmitted based upon network availability. This means that data is subject to queuing until network bandwidth becomes available. Unlike other ATM service classes, UBR does not have defined QoS (Quality of Service) guarantees with respect to bandwidth availability or delay.

i. Frame Relay to ATM Network Interworking Standard (FRF.5)

The Frame Relay to ATM Network Interworking Standard (FRF.5) enables two frame relay devices or networks to communicate across an ATM backbone. The frame relay to ATM Interworking technology responds to the need for increased bandwidth by allowing enterprise frame relay networks to seamlessly scale up to high-speed ATM networks.

j. Frame Relay to ATM Service Interworking standard (FRF.8)

The Frame Relay to ATM Service Interworking standard (FRF.8) enables a frame relay user device to connect to an ATM user device over a common WAN backbone. Frame Relay to ATM Service Interworking enables seamless communication between ATM and frame relay networks or end-user devices.

k. Internet Gateway Access

COVANET ATM users will gain access to the Internet through the COVANET Internet Gateway by mapping a PVC to one of the gateway routers. Users looking for an added level of redundancy in their Internet service may wish to install a second PVC to a diverse Internet gateway router at no cost. This option allows a site to maintain access to the Internet even if one of the Internet Gateway routers fail.

l. COVANET Private IP access

ATM users may wish to map an IP PVC to the COVANET Private IP platform. This will give the user the ability to take advantage of the COVANET Private IP services as described in Attachment J. The service categories (QoS) that will be assigned for each IP PVC are identified in Table A.1.5.1. The QoS for applications that are not identified in Table A.1.5.1 will be assigned a QoS through mutual agreement between MCI and VITA

m. Extended Coverage

Through a partnership with NTELOS, MCI extends the COVANET footprint to include more POPs and network in the regions southwest of Richmond.

NTELOS provides both DS-1 and DS-3 special access. Using this method the customer's router is directly connected to the MCI switching platform, there is no Frame Relay switching performed in the NTELOS network and therefore no Network-to-Network connection. NTELOS provides this access using two methods:

- NTELOS owned facilities – In this case the access is totally owned and operated by NTELOS. They have facilities into the location requiring services.

- Type 2 – In this access method, NTELOS does not have facilities to the location requesting service. They are collocated with the Local Exchange Carrier and are interconnected at that point. The connectivity for this type access is MCI COVANET Node-NTELOS-Local Exchange Carrier-Commonwealth location.

n. Install Assist for Customer Equipment

MCI VNOC engineers will provide assistance to the Commonwealth upon request to initially configure routers during the installation of ATM services.

o. Interstate Connections

MCI provides the Commonwealth the ability to extend the reach of COVANET beyond the borders of Virginia. If an agency requests ATM service to an organization outside of Virginia, a Telecommunications Service Request should be submitted through the normal channels, this will be handled by MCI in the following manner. MCI will provision a private line circuit from the requested location the nearest COVANET node. At that point they will be connected the ATM network.

A.1.6 Public ATM and Frame Relay Service

MCI provides ATM and Frame Relay service to the Commonwealth. These services provide connectivity to non-COVANET entities and are separate from the ATM and Frame Relay access for the COVANET network. Both ATM and Frame Relay can be used as a public network service. This would allow agencies, institutions, and public bodies to establish connectivity with commercial entities for the purpose of conducting business.

A.1.6.1 Public ATM Features

The unique features associated with ATM access are the specific solutions they provide.

The key features of Public MCI ATM include:

- Nationwide service availability
- International service availability
- Multiple interface rates:
    - 1.544 Mbps (DS1)
    - NxDS1 Mbps (3 Mbps – 6 Mbps)
    - 45 Mbps (DS3)
    - 155 Mbps (OC3/STM1)
    - 622 Mbps (OC12) – On an Individual Case Basis
- Multiple service classes:
    - Constant Bit Rate (CBR)
    - Variable Bit Rate – Real Time (VBR-RT)
    - Variable Bit Rate – Non-Real Time (VBR-NRT)
    - Available Bit Rate (ABR)
    - Unspecified Bit Rate (UBR)
- Permanent Virtual Connections (PVC)

- Permanent Virtual Path Connection (PVPC)
- Permanent Virtual Channel Connection (PVCC)
- FR/ATM Service Interworking (FRASI)
- PVCs to the Internet
- Fixed rate pricing
- Service level agreements available nationally
- Customer network management reporting

A.1.6.2 Public Frame Relay

Frame Relay is a high-speed data transport service designed to provide cost-efficient data transmission for intermittent traffic between local area networks (LANs) and between end-points in a wide area network (WAN).

a. Port Connections

The port connection is the physical entry into the MCI Frame Relay network providing high-speed access to the Frame cloud. The port connection speed defines the maximum throughput into and out of the port connection at any point in time. The capacity of the port is dynamically allocated over the associated PVCs to meet real time changes in bandwidth requirements.

b. MCI Port Speeds

MCI offers a variety of Frame Relay port speeds. Standard port speeds are subject to local restrictions and in-country differences, e.g., capacity limitations or legal restrictions, but some examples of the most common standard port speeds are listed in the table below.

Table A.1.6. Standard Port Connection Speeds

56/ 64 kbps	384 kbps	1.024 Mbps
128 kbps	512 kbps	1.536 Mbps
256 kbps	768 kbps	1.984 Mbps

c. PVCs (Permanent Virtual Circuits)

PVCs are the logical connections between ports on the Frame Relay network. PVCs are similar to private lines in that they are dedicated to a single user and all data transmitted over a PVC will take the same path (unless a network failure occurs).

PVCs are connection-oriented virtual circuits. Connection-oriented means that there is a connection establishment phase, a data transfer phase and a termination connection phase.

Each PVC has a unique virtual circuit number called Data Link Connection Identifier (DLCI) corresponding to a particular destination. The DLCI is a part of the information contained in the frame header.

d. Committed Information Rate

A PVC is defined by its Committed Information Rate (CIR). The CIR value is the average rate of traffic transmitted across a PVC under normal conditions. Each PVC is assigned a CIR, which represents the average capacity that the port connection should allocate to the PVC.

The CIR is the rate at which the network agrees to transfer data under normal conditions. The CIR is measured over time interval Tc in bits per second. Tc is derived as:

$$Bc / CIR = Tc$$

CIR is also defined for each PVC. Per definition, the committed burst size equals the CIR value for MCI's Frame Relay service. Thus, Bc = CIR. When a customer burst within Bc (or the CIR) no frames are marked as eligible for discard.

The CIR assigned to a specific PVC cannot exceed the speed of the originating or terminating port connection. The following CIRs are offered as standard in EMEA under the MCI Frame Relay service:

Table A.1.6.1. Standard CIRs

16 kbps	192 kbps	1.024 Mbps
32 kbps	256 kbps	1.536 Mbps
48 kbps	384 kbps	1.984 Mbps
64 kbps	512 kbps	
128 kbps	768 kbps	

e. Bursting

Committed Bursting- The Committed Burst, Bc, represents the maximum number of bits, during time interval Tc, the network agrees to accept under normal conditions. Bc is defined for each PVC.

f. Excess Bursting

MCI defines excess burst (Be) as the amount of data greater than the Committed Information Rate but equal to or less than the size of the smallest port on either end of a point-to-point connection. Hence, Be is the number of uncommitted bits, during the time interval Tc, the network agrees to accept above the committed burst size Bc. Be is defined as follows: $CIR < Be \geq$ Min. Port Speed

MCI customers are allowed to burst above CIR to the port speed if there is availability on the network; however, bursting is not guaranteed. If congestion occurs on the network, packets will be discarded according to the congestion management scheme applied.

When there is no congestion on the network, the customer can burst up to port speed (minimum port speed). All excess data is allowed to burst if the network is able to accommodate it resulting in increased throughput. If the network is full at the desired bursting time, the customer is only guaranteed data transmission up to CIR; all frames above CIR will be marked for discard.

The Customer's burst level will also be limited by the size of the physical trunk line connected into the Node Site. For example, if a customer has a 1024K port and 512K CIR, but the physical trunk speed is 768K, the customer will only be able to burst to 768K.

g. Frame Relay Features

- **Priority PVC** - This feature allows customers to have the ability to prioritize different types of traffic operating over their frame relay network on a per-PVC basis. Customers must have different applications defined on separate PVCs. While congestion is unusual in the Option 2 Frame Relay Service network, congestion may occur within egress of an oversubscribed customer port. Priority PVC will enable customers to ensure that traffic within their egress ports receives the level of priority they require.

- **Peak Information Rate (PIR)** - Using the Option 2 Frame Relay PIR feature, customers can have additional capability for traffic management and control. PIR defines the maximum transmission rate on a given PVC so that bursting will have limited impact to other PVCs sharing the same port and access facilities. This feature allows customers to set an upper boundary on the information rate for a PVC on the Option 2 Frame Relay Service network.

- **Public FRASI (Frame Relay to ATM Service Internetworking)**

  FRASI provides an easy migration path from Frame Relay to ATM, providing the Commonwealth with cost-effective access to higher bandwidth and more connectivity options. Existing ATM customers can also benefit as FRASI allows the provision of service in areas where there currently is not an ATM node or where a Frame Relay service will suffice.

  Two PVCs carry each FRASI circuit. One PVC will be constructed from the ATM customer access port to the gateway, and one PVC will be constructed from the Frame Relay customer access port to the gateway. The ATM PVC interconnects the Frame Relay and ATM PVC across the gateway. The customer specifies the Frame Relay CIR, with MCI setting the ATM PVC to be equivalent.

A.1.7 Digital Subscriber Line (DSL) Service

MCI's SDSL service provides a flexible range of bandwidth offerings from 128 Kbps to 768 Kbps. MCI utilizes a variety of premise equipment, the MCI provided equipment, which is included as part of the service offering will supply an Ethernet interface to the customer's equipment. MCI will dispatch a technician to the customer's location for the installation of the DSL equipment.

MCI also provides IDSL services to the Commonwealth. The typical DSL implementation utilizes exclusively copper loops; the advantage of IDSL is it can be provisioned across local loops that contain electronics. IDSL is primary used in the event that SDSL service is not available. The line rate on IDSL is limited to 128 Kbps. The premise equipment available for IDSL is single port 10BaseT unit; this unit also functions as a router.

DSL coverage is not ubiquitous across the entire state. MCI will continue to expand its own network and work with its partners as they expand into new territories.

Included with the basic DSL service is a single PVC. If a DSL service of 256 Kbps is requested, the CIR for this PVC is will be 256 Kbps. However, the DSL subscriber is not limited to a single PVC, the Commonwealth can add additional PVCs for a site at any time for an additional charge.

a. Install Assist for Customer Equipment

The MCI VNOC engineers will provide assistance to the Commonwealth upon request to initially configure routers during the installation of DSL services.

A.1.8 Internet Services

MCI will provide the Commonwealth with the following Internet Services:

- Dedicated Internet
- COVANET Gateway Internet Services
- Internet DSL
- Dial Internet
- VSAT Internet
- Install Assist for Customer Equipment

A.1.8.1 Dedicated Internet Services

The following Internet Dedicated services are available

Table A.1.8.1 Dedicated Internet Services

Dedicated Internet Service	Service Description
T1 Diverse	Internet Dedicated T1 Diverse is designed to accommodate those customers whose primary concern is for redundancy. MCI will attempt to provision the two T1s to different MCI-owned high-speed hubs. If provisioning to separate hubs is not possible, the rep must determine if there are sufficient MCI-owned facilities within the hub to allow for redundancy.
T1 Double	MCI's Internet Dedicated T1 Double product is designed to accommodate customers whose primary concern is for additional bandwidth. MCI will provision both Ts to the same MCI-owned hub and the same GW router.
NxT1	MCI's Internet Dedicated NxT1 MLFR (Multilink Frame Relay) Service is a low-end, multi-megabit service delivering flexible, scaleable Internet access from 3 to 12 Mbps. Positioned just beyond the Internet Dedicated T1 Double/Diverse, this service fills the bandwidth gap between an Internet Dedicated T1 (1.5 Mbps) and T3 (45 Mbps).
T1 Price Protected	Internet Dedicated T1 Price Protected is a full T1 (1.54 Mbps) of access at all times with a single, fixed cost. It is designed for organizations that require a full T1 on a sustained level or for a company that needs to budget a steady monthly cost.
T3 Double/Diverse	MCI Internet Dedicated T3 Double/Diverse product is a non-muxed solution designed to allow customers to use two T3 circuits for increased capacity and/or diversity. Customers are able to maximize the investment of their existing customer premises equipment (CPE) by only adding an additional Channel Service Unit/Data Service Unit (CSU/DSU) or Cisco POET card. A T3 Double offers customers the ability to increase their bandwidth by load sharing across two T3 circuits that are provisioned to the same MCI owned hub and gateway router. A T3 Diverse offers customers the ability to build redundancy into their connectivity by provisioning two T3 circuits to two different MCI owned hubs. If two distinct hubs are not possible, the two circuits should be provisioned on different routers within the same MCI owned facility to create redundancy. Both T3 circuits originate from the same customer location and are provisioned as full T3 connections (45 Mbps).
T3 Price Protected	MCI Internet Dedicated T3 Price Protected provides full T3 (45 Mbps) access at all times, with a single, monthly, fixed cost. It is designed for organizations that require a full T3 on a sustained level, or for a company that needs to budget a consistent monthly cost. This service requires a minimum commitment of one year.
T3 Tiered	MCI Internet Dedicated T3 Tiered service is a point-to-point connection providing high bandwidth leased line connectivity from the customer's premises directly into a MCI owned hub. A full T3 circuit (45 Mbps) is provisioned, but the bandwidth is capped in 3 Mbps increments to limit bandwidth usage. A customer may upgrade to another bandwidth tier at

Dedicated Internet Service	Service Description
	any time.
OC-3 Price Protected	The MCI Internet Dedicated OC-3 Price Protected is provisioned as a full OC-3 circuit (155 Mbps) with a single, monthly, fixed cost. The product is designed for organizations that require a full OC-3 circuit on a sustained level and would like to budget a consistent monthly cost. This service requires a minimum commitment of one year.
OC-3 Double/Diverse	The MCI Internet Dedicated OC-3 Double product is designed to accommodate those customers whose primary concern is for additional bandwidth. For this product, MCI will provision both OC-3s as full circuits to the same MCI owned hub, preferably the same router. The OC-3 Diverse product is designed to accommodate those customers whose primary concern is for redundancy. For this product, MCI will attempt to provision the two OC-3s to different MCI owned high-speed hubs. If provisioning to separate hubs is not possible, it is necessary to determine whether or not there are sufficient MCI owned facilities within the hub to allow for redundancy.
OC-3 Tiered	MCI Internet Dedicated OC-3 Tiered is a point-to-point connection providing high bandwidth leased line connectivity from the customer's premises directly into a MCI owned hub. A full OC-3 circuit (155 Mbps) is provisioned, but the bandwidth is capped in increments to limit bandwidth usage (60M, 70M, 80M, 90M, 100M, and 155M). A customer may upgrade to another bandwidth tier at any time.

A.1.8.2 COVANET Gateway Internet Services

MCI will provide Internet services via a shared Internet Gateway Service. MCI provides the Internet Gateway Service to all Frame Relay, ATM, and COVANET DSL users via PVCs mapped to one or more of the Internet Gateways.

To provide Internet access through COVANET, MCI maintains two Internet gateway routers. The gateway routers are connected directly to the UUNET backbone. Customers can either connect to the Internet by mapping a PVC from their site, through the ATM core to the gateway router, or to the Internet Gateway via a PVC to VITA. The gateway routers are considered 'Public', meaning all traffic destined for or originating from the gateways should be regarded as unfiltered Internet traffic, and treated accordingly.

A.1.8.3 Internet DSL

MCI Internet DSL will provide a connection between the COVANET site and the UUNET backbone through the local telephone network. Internet DSL Office is currently offered at speeds of 128k, 384k, 768k, and 1.0M.

The following feature matrix explains MCI’s Internet DSL offering:

Table A.1.8.3 Internet DSL Offering

Features	Internet DSL
Private network (layer 2)	No
Public Internet (layer 3)	Yes
End-users	Multiple end-users
IP addressing	Static, pre-assigned
Number of IP addresses	Up to 128
Network architecture	4:1 over-subscription rate
Domain name registration	Yes
DNS hosting of domain	Yes
Hosted POP3 e-mail boxes	Up to 20 included
Access to MCI's news servers	Up to five concurrent sessions
Customer premises equipment	Router or modem
On-site installation	Yes
DSL local loop	Symmetric

MCI's Internet DSL product family consists of the Internet DSL Office and Internet DSL Solo. Both products are designed to provide customers with a business-class Internet DSL service using DSL local loop technology as the last mile to deliver access to MCI's public IP backbone.

a. Internet DSL Office

MCI's Internet DSL Office product is designed to offer a complete Internet service for a multi-user business customer. The product is all-inclusive and includes secondary services such as Domain Name Registration, DNS hosting, and 20 MCI-hosted POP3 mailboxes.

The key reason why Office is a multi-user solution is the inclusion of up to 64 real routable static IP addresses. These IP addresses are public IP addresses (can be reached from anywhere on the Internet) and are included as part of the service.

Internet DSL Office uses dry-loop IDSL & SDSL technology to deliver a symmetric service in four speeds (128K, 384K, 768K, and 1.0M). Dry-loop DSL technology uses the same quality of copper used for standard POTS lines, but dedicates a separate single pair of copper only used for the DSL service. Dry-loop services don't require the customer to have a pre-existing POTS line in order to deliver the service.

b. Internet DSL Solo

MCI's Internet DSL Solo product was designed for the single business user (typically a telecommuter or teleworker) and provides a single PC with public Internet access. The service does not include secondary services (like Domain Name Registration, DNS Hosting, POP3 mailboxes.

Internet DSL Solo also includes two static IP addresses in the standard fee. The CPE used is a DSL Modem (vs. DSL Router) and is designed to enable a single user to access the service. Solo is offered in a single 384K x 128K (384K down, 128K up) asymmetric speed.

Internet DSL Solo uses ADSL line-sharing technology as the last-mile technology. ADSL line sharing uses (and requires) and existing POTS line to be installed at the location where the DSL service is to be installed.

Because Solo uses ADSL line-sharing technology, the service is not available when the POTS line is behind fiber or at longer loop lengths. Because of this, Internet DSL Solo is usually available in a fewer number of locations (given the same average distribution) than Office for the same list of sites

c. Dial-Up Internet

Internet Dial Corporate is MCI's premier multi-user, remote IP dial access service designed for corporate customers. It is meant to serve large companies or organizations that have remote, roaming, or branch office users, and/or contractors. It provides an excellent foundation infrastructure for remote analog or ISDN access to a business intranet, extranet, or virtual private network (VPN).

Internet Dial Corporate offers three key components:

- MCI-Hosted Enterprise Service Management (ESM) infrastructure with a customer-hosted Remote Authentication Dial-In User Service (RADIUS) option available
- Network Filtering (controls the destination sites users can access)
- Electronic Phone Book and Client Dialer Services which allow dynamic updates of MCI points of presence (POPs)

Internet Dial Corporate is a dial access service that provides remote users with a dial-up point-to-point protocol (PPP) connection to the Internet. Internet Dial Corporate is a MCI-branded service offering which utilizes the public MCI DAN POPs.

Internet Corporate Dial is available in the Commonwealth statewide at the following Points of Presence:

Table A.1.8.4 Internet Dial Points of Presence

Location	Area Code	Dial Access Number	Modem Capability
Alberta	434	949-0459	ISDN V.34+ K56flex V.90
Arcola	703	327-6825	ISDN V.34+ K56flex V.90
Blacksburg	540	961-9820	ISDN V.34+ K56flex V.90
Boydton	434	738-0238	ISDN V.34+ K56flex V.90
Boykins	757	654-6977	ISDN V.34+ K56flex V.90
Capron	434	658-3133	ISDN V.34+ K56flex V.90

Location	Area Code	Dial Access Number	Modem Capability
Chancellor	540	786-8440	ISDN V.34+ K56flex V.90
Charlottesville	434	297-0357	ISDN V.34+ K56flex V.90
Chase City	434	372-0976	ISDN V.34+ K56flex V.90
Clarksville	434	374-9474	ISDN V.34+ K56flex V.90
Courtland	757	653-9559	ISDN V.34+ K56flex V.90
Crittenden	757	238-8407	ISDN V.34+ K56flex V.90
Culpeper	540	829-4651	ISDN V.34+ K56flex V.90
Disputanta	804	991-3064	ISDN V.34+ K56flex V.90
Emporia	434	336-1156	ISDN V.34+ K56flex V.90
Franklin	757	569-1893	ISDN V.34+ K56flex V.90
Fredericksburg	540	372-3058	ISDN V.34+ K56flex V.90
Great Bridge	757	547-1692	ISDN V.34+ K56flex V.90
Harrisonburg	540	432-0816	ISDN V.34+ K56flex V.90
Holland	757	657-9979	ISDN V.34+ K56flex V.90
Jarratt	434	535-0278	ISDN V.34+ K56flex V.90
Lawrenceville	434	848-6663	ISDN V.34+ K56flex V.90
Leesburg	703	723-5070	ISDN V.34+ K56flex V.90
Lorton	703	646-0025	ISDN V.34+ K56flex V.90
Lorton	703	690-9755	ISDN V.34+ K56flex V.90
Louisa	540	967-4900	V.34+ K56flex V.90
Lynchburg	434	846-8332	ISDN V.34+ K56flex V.90
Manassas	703	392-5494	ISDN V.34+ K56flex V.90
Norfolk	757	423-8640	ISDN V.34+ K56flex V.90
Norfolk	757	533-5140	ISDN V.34+ K56flex V.90
Occoquan	703	494-5975	ISDN V.34+ K56flex V.90
Occoquan	703	496-0028	ISDN V.34+ K56flex V.90
Petersburg	804	524-0030	ISDN V.34+ K56flex V.90
Prater	276	597-2000	ISDN V.34+ K56flex V.90
Princess Anne	757	563-9922	ISDN V.34+ K56flex V.90
Reston	703	995-0509	V.34+ K56flex V.90
Richlands	276	596-9757	ISDN V.34+ K56flex V.90
Richmond	804	276-0978	ISDN V.34+ K56flex V.90
Roanoke	540	725-8319	ISDN V.34+ K56flex V.90
Roanoke	540	857-0700	ISDN V.34+ K56flex V.90
Stafford	540	657-1980	ISDN V.34+ K56flex V.90
Staunton	540	851-2340	ISDN V.34+ K56flex V.90
Warrenton	540	349-1387	ISDN V.34+ K56flex V.90
Williamsburg	757	253-2105	ISDN V.34+ K56flex V.90
Winchester	540	535-0120	ISDN V.34+ K56flex V.90

d. VSAT Internet

MCI Internet VSAT enables the Commonwealth to access virtual private network (VPN) applications using small dish satellite technology. Internet and access service available at speeds of up to 1 Mbps downstream and 128 Kbps upstream, depending on which service the customer opts for. MCI Internet VSAT couples Hughes Network Systems Two Way DIRECWAY Satellite Network with MCI's UUNET IP backbone to enable remote offices to connect to the Internet, intranets, and local area networks (LANs). MCI Internet VSAT provides companies with a remote access solution available virtually anywhere in the contiguous U.S. with a view of the southern sky.

MCI VSAT offers many features:

- Remotes can be located anywhere in the Continental United States with a clear view of the Southern sky.
- VSAT can be used for stand-alone Internet access or for Enterprise access through IP VPN.
- VSAT is "Always On", similar to DSL or Cable Modem technologies
- Flat rate, unlimited use pricing
- POTS line required only for initial setup.
- Highly scaleable solution
- Use for redundancy where separate entrance facility is not available
- Multicast for the Commonwealth of Virginia

MCI provides Internet Multicast for the Commonwealth of Virginia. Based on standard multicast Internet protocols, MCI Internet Multicast Premium enables customers to broadcast a single stream of content to thousands of recipients simultaneously.

MCI Internet Multicast Premium relies on scalability for its efficiencies. MCI's service replicates and distributes customers' content streams to end-users requesting the data. The MCI Internet Multicast Premium customer can virtually broadcast only a single data stream, which is then replicated within the MCI infrastructure--instead of on the customer server--and sent to each end-user.

The MCI Internet Multicast Premium customer may use any multicast-capable software, such as Microsoft's Media Server or RealNetworks' RealServer, as a content source.

e. Domain Name Service

MCI will provide Secondary Domain Name Service (DNS) for VITA. Primary DNS will be the responsibility of VITA. VITA DNS zone changes requests will be communicated to the MCI VNOC, the VNOC will be responsible for ensuring that UUNET makes the appropriate changes.

f. Install Assist for Customer Equipment

MCI VNOC engineers will provide assistance to the Commonwealth upon request to initially configure routers during the installation of Internet services.

g. Premium Internet Service

MCI's Premium Internet Service offers the ability to Classify, Analyze, and Control traffic that goes through the COVANET shared Internet gateways. With this service, the Commonwealth can specify bandwidth minimums and/or maximums on a per-session or per-application basis.

MCI will provide pricing for this service at a later time once demand has been established.

A.1.9 Electronic Data Interchange (EDI)

MCI's EDI*Net

MCI's EDI*Net will provide services that support electronic exchange of business transactions (e.g., invoices, price/sale catalogs, requests for quotation, purchase orders, contract awards, shipping information, payments, orders, remittance advice, and healthcare claims). EDI*Net is the Electronic Data Interchange (EDI) value-added network service offered by MCI. EDI*Net is a secure and reliable communications and document mailboxing service that facilitates the flow of standard formatted business documents (e.g., transaction sets) between trading partners. It is a store-and-forward, store-and-retrieve service. Each customer has a minimum of one mailbox to hold his or her EDI messages.

The service is based on next generation Tandem fault-tolerant hardware that performs the required functions on EDI transactions: parse, validate, account, store, and distribute. Send/Receive codes, unique to each trading partner, function as the address mechanism for the EDI messages.

EDI*Net receives and delivers messages via the MCI packet switched, frame relay, switched multi-megabit data service (SMDS), and Internet services. MCI packet switched and Internet services offer both dedicated and dial-up access. The Tandem platform technology combined with the MCI data network backbone makes EDI*Net one of the most comprehensive, flexible, and reliable EDI services available in the industry today.

Standards Support. MCI's EDI*Net conforms to all public EDI standards, including American National Standards Institute (ANSI) X12 UCS/WINS/VICS, United Nations Electronic Data Interchange for Acquisition Commerce and Transport (EDIFACT), and

TRADACOMS. EDI*Net was a charter member of the original United Nations Joint Electronic Data Interchange (UNJEDI) Task Group, which developed the EDIFACT standards, and supports the EDIFACT International EDI Standard adopted in 1987.

a. Message Retention. EDI*Net supports storage for up to 60 days. Audit trails are maintained for the period of time the message is stored. At the Commonwealth's request, retained messages can be restored in the user's mailbox within 24 hours for up to 60 days following initial transmission.

b. Distribution Lists. EDI*Net supports the distribution of EDI transactions to multiple recipients via stored lists. EDI*Net has the flexibility to prepare customized messages for each recipient.

c. Access. EDI*Net resides within MCI's data network. This allows EDI*Net to support a variety of access and delivery methods. The user can connect his or her host or PC to the EDI*Net service using dial-up or leased-line connections. Over leased lines, the service supports bisynchronous (2780/3780), X.25, frame relay, and SNA (3770) access. Over dial-up lines, the service supports asynchronous, bisynchronous (2780/3780), X.25, and SNA (3770) access. The service also supports access via the X.400 standard and the OPEN Communication Standard (OCS), and outbound access to fax equipment via the EDI-to-Fax service. IP access through MCI's frame relay and Internet services is available.

d. EDI to FAX. MCI's EDI*Net to Fax service allows the user, as an EDI*Net subscriber, to transmit documents to his or her non-EDI-capable trading partners who use fax machines. The EDI*Net system automatically converts the documents and routes them to the trading partners' fax machines.

e. Simple Form*EC. MCI's Simple Form*EC Service is a web-based solution accessible via a web-capable browser, e.g., Netscape or Internet Explorer versions 3.0 or greater. The service resides on Oracle web servers using a web application and packaged business rules and tables within the database server.

f. EDI/Internet Gateway.

EDI*Net users are permitted to access their EDI*Net mailbox via MCI's Internet service or other Internet Service Providers (ISPs). This access method is in addition to the MCI network access methods of packet, frame relay, and SMDS. The second capability of MCI's EDI/Internet gateway is for EDI*Net users to be able to send and receive data with their trading partners via Internet addresses, rather than a mailbox on one of the traditional EDI VANs.

MCI's EDI/Internet Gateway provides the capability for delivering X.12 transaction files to users/trading partners that are not serviced by an EDI mailbox. The gateway supports both FTP and SMTP (over TCP/IP) to and from an Internet address.

g. EDI Translation Software/Applications.

The MCI EDI*Net service does not require or recommend any specific EDI translation software. MCI believes that specialized hardware, application, and industry needs cannot be effectively or economically addressed with a single software solution. No one software package can meet everyone's diverse needs. Therefore, MCI has continued to focus on EDI data communications technology while working hand-in-hand with an increasing number of translation software vendors. However, MCI does certify EDI translation software in an effort to assist its customers in their implementation plans. The MCI Translation Software Certification Program tests commercially available EDI translation packages, verifies their compatibility with the EDI*Net network, and establishes a certified link between each translator and the EDI*Net system. Table A.1.9 is a list of MCI's EDI*NET certified translation software vendors.

Table A.1.9 MCI's EDI*NET
Certified Translation Software Vendors

Company	Product
Advanced Communications System	DataMail
The APL Group, Inc.	Qualedi
Automated Media Inc.	P.A.R.T.S
BAC-TECH Systems, Inc.	Vision
Data Management Strategies	Pro-EDI
Datacom Global Corporation	EDI-Answer
Digit Software	MacEDI
Digital Equipment Corporation	DEC EDI
DNS Associates	EDI/EDGE
Document Interchange Systems	DAX-EDI
EDI-Able, Inc.	FrEDI
EDICT Systems	Formula 1
EDI Integration	Eagle
EDS	EDI*ASSET
Giant Systems	Giant Office Software
Harbinger	Trusted|Link Enterprise; STX, STMAP
Innovative Computing Corporation	EDIPREP
Metcan Information Technologies, Inc.	I*Can*EDI
Notto Corporation	System.EDI
Piedmont Systems	TEL-EDI
Premenos	EDI/OPEN, EDI/400
Prophet21	The Prophet System
Radley Business Computers	Radley-EDI
RMS Electronic Commerce Systems	RMS-VLT
SDM International	LinkPlus Batch
St. Paul Software	INTERCONN
Softshare Information Services	EDI LINK
Sterling Commerce	Gentran
Telink	Telink/EZB; Telink/Gateway
Trinary Systems	EDI Windows
TSI International	Trading Partner PC
X-Change Software, Inc.	XBID, XGSA

Through this open systems approach, Agencies can select from dozens of certified translation software products. Trading partners are usually able to implement their link to EDI*Net within an average of five business days.

A.1.10 Managed Virtual Private Network Services

MCI's Managed Virtual Private Network (VPN) Service provides a fully managed virtual private network (VPN) solution developed for the Commonwealth using the Internet Protocol connectivity as the foundation for secure, high performance communications between sites.

COVANET managed VPN is built upon industry standard technology (IPSec/DES/3DES) leveraging technology from industry leading vendors and will support numerous switches including Nortel and Cisco VPN switches as well as Nortel routers.

The Managed Virtual Private Network utilizes a single customer premises equipment (CPE) solution to provide both site to site and remote access IP VPN support. When paired with COVANET Frame Relay, ATM, and IP connections, COVANET Managed VPN is available with access speeds from 56 kps to 155 Mbps. COVANET managed VPN provides support for site-to-site operations and remote access VPN services.

COVANET managed VPN is based on IP routing and WAN access services. It supports a wide range of functions, including access to multiple fixed location sites, e-commerce and data centric service support, traditional Wide Area Networks (WAN) infrastructures, and data encryption. Additionally, COVANET allows selection of an ISP, which allows the use of existing broadband technologies like DSL and Cable Modems given the Internet Service Provider allows IPSEC.

COVANET Managed VPN provides the Commonwealth a dedicated encryption capability using an IP Security (IPSec) encryption standard.

COVANET managed VPN provides the following standard features:

- Fully Managed IP-based Virtual Private Network (VPN)
- MCI provides a complete turnkey VPN solution that includes the network design, configuration, installation, onsite maintenance, and ongoing management expertise to help support your VPN service requirements.
- The Commonwealth receives the capabilities of MCI's global IP network combined with standards based tunneling and encryption technologies. The COVANET Managed VPN program supports numerous switches including Nortel Contivity VPN switches and the Cisco Concentrator 3000 series switches.
- COVANET Managed VPN users can select from any of the access methods available to COVANET customers including Frame Relay, ATM, IP, and Dial-Up services. It also provides the flexibility to utilize other Internet service providers.

- COVANET managed VPN provides the following network and technical requirements:

    - COVANET managed VPN is compatible with Microsoft® Windows® 95, Windows98, Windows NT® Client and Server, Windows 2000, Windows Millennium and Windows XP. (For Remote Client Only).

- COVANET Managed VPN will support the following forms of authentication:

    - Internal LDAP
    - External RADIUS
    - Digital Certificates

- When using LDAP and RADIUS, the customer has the option of maintaining the database of users and passwords or having MCI provide that as part of the service.

- When customer elects to have MCI provide management of users and passwords using LDAP or RADIUS, only designated customer personnel will be authorized to request changes to the database. Changes can be requested by e-mail or through a secure Web interface. Changes will be made within eight business hours of receiving the request. All designated personnel will receive a confirmation of the changes.

- The local MCI support group provides your organization with circuit allocation, installation, and initial configuration for COVANET managed VPN as well as first-level customer service. MCI will also provide pro-active monitoring, on-site maintenance as well as end-user support.

a. Engineering support

MCI will meet with the customer to develop a Statement of Work (SOW) prior to implementing Managed VPN services. This SOW will outline areas of responsibility for VPN services. COVANET's VPN offerings are technically complex and not suitable for all networking scenarios. MCI will work with the customer to determine if their network will support VPN in a manner sufficient to achieve their requirements. The managed offering does not support all features of all vendors' equipment, and is not supported in all network environments. MCI will accept management responsibility for a VPN device or network only after consulting with the customer and determining the VPN solution will satisfy the customer's needs.

b. Installation Support

(1) **COVANET Installed Switches/Routers**

When Managed VPN services are ordered in conjunction with the VPN box from the DIT/Nortel contract, the installation will be performed by MCI with the following guidelines:

- MCI will send a configuration worksheet to the customer to gather information needed to stage and configure the box.
- The VPN box will be sent to MCI directly from the vendor for staging prior to installation.
- Before the scheduled installation, a MCI Implementation Engineer will call the customer's technical point of contact to review the configuration worksheet.
- For Managed VPN services using a COVANET provided access, MCI will coordinate the installation with the customer and other vendors such as the local phone company or router vendor.
- For Managed VPN services using a Customer Provided ISP, MCI will coordinate the installation with the customer. Coordination with other vendors is the responsibility of the customer.
- The switch will not be installed without the customer's router and network connection being up and reachable from our Network Operations Center.
- MCI will complete the installation within 3 weeks of receiving the switch from the vendor, provided the other network components are in place.
- Installations will take place during normal business hours (M-F, 8-5).
- After hours installations will incur additional charges.
- Customers are responsible for providing a phone line for "out-of-band" connections on Off-Net installations as well as space and power for the box installation.
- The Contivity box should be located in close proximity to the LAN and network connections.

- Installation will include cables up to 15 ft in length. If the LAN and/or network connections are further than 15 ft from the switch location, the customer is responsible for providing the appropriate connections needed to complete the installation.

- MCI is not responsible for the configuration of the customer's router, Firewall or any other network devices at the customer premise except the VPN switch unless the customer is subscribing to Managed Router Services as well.

- The equipment installation will include:

    - Two hours for an onsite engineer.

    - Racking and cabling equipment

    - Interactive testing with the MCI NOC

    - Verify connectivity via ping and remote access through the Network Management Platform.

After installation of the switch, MCI will perform testing on the switch to be sure the customer's network connection will support VPN communications. If a problem is identified, MCI will work with the customer, network provider, and/or equipment vendor to rectify the problem.

(2) **Customer Installed Switches/Routers**

When Managed VPN services are ordered for customer installed switches/routers:

- MCI will send a configuration worksheet to the customer to gather information needed to evaluate the box for Managed VPN services.

- An MCI Implementation Engineer will contact the customer's technical point of contact to review the questionnaire.

- After reviewing, verifying, and evaluating the information on the configuration worksheet, MCI will decide if the box will be accepted for Managed VPN services.

Before an Off-Net VPN switch is accepted, it must have an "out-of-band" connection installed either by the customer or by MCI at a charge to the customer and the box must have an acceptable software revision that is to be determined by MCI. Once the switch is accepted, all passwords will be changed and MCI assumes management and maintenance of the box. No routers will be managed on Off-Net connections.

c. Change Management

Change Management is included in the Managed VPN service, this is described as In-Scope or Out-of-Scope.

(1) In-Scope:

- VPN software upgrades (Only when necessary to correct a problem)
- Password management
- Configuration management (Changes can only be made by MCI personnel).

(2) Out-of-Scope:

- Customer design impacting changes that require a Statement of Work to be created.

A.1.11 Disaster Recovery Services

MCI has several disaster recovery plans to satisfy diverse requirements for the Commonwealth. MCI has implemented a plan to redirect all PVCs that terminate into DIT's 7513 to the SunGard data center. In both a test and real life situation and with the direction of DIT, MCI will move PVCs. To accomplish this transfer of services MCI has provisioned two DS-3s originating from COVANET's ATM/Frame Relay platform at MCI's Richmond operations facility and terminating to the SunGard national network POP on Parham Road.

A.1.12 MCI Managed Intrusion Detection Service

This Statement of Services details the monthly recurring services and non-recurring transition that will be provided. For all services provided, the following is defined herein.

A.1.12.1 ShadowPatrol

ShadowPatrol is a managed, monitored and maintained intrusion detection solution. ShadowPatrol supports both host and network based IDS capabilities of the supported platforms.

a. Supported Platforms

MCI will not takeover any existing customer platforms.

b. Monitoring

MCI monitors network IDS (NIDS) for security, availability and performance events, and host IDS for HIDS generated security events. MCI does not monitor anything about the host on which the HIDS is resident, with the exception of the basic availability of the host machine. The monitoring is provided via the Secure Data Agent (SDA), which acts as both an SNMP poller and SNMP trap collector. The SDA also collects log file information from the NIDS and signature alerts from the NIDS and the HIDS. The information collected is encrypted and sent to the MCI SOC for analysis.

(1) SNMP trap collection

For NIDS, MCI receives and processes SNMP traps from the IDS application and the operating system. These traps may pertain to the application, the operating system, or the hardware. Traps are sent based on significant security and performance events. The primary security events that will generate alerts are IDS signature alert violations. Performance events will generate a trap when a performance threshold is exceeded. Performance thresholds will be based on excessive CPU utilization, disk space limitations, memory limitations, and excessive paging or swap file usage.

For HIDS, MCI receives and processes SNMP traps from the IDS application only. Traps are sent based on significant security events. The primary security events that will generate alerts are IDS signature alert violations.

(2) Polling

MCI performs availability polling from the SDA to the NIDS on a recurring basis. Availability polling involves making sure the NIDS machine is up and running, each in-use and configured interface is up and passing traffic, and the NIDS application is running. Additionally, MCI polls the SDA for availability from our SOC on a recurring basis. Because the SDA does not accept ICMP packets (pings) from the Internet, availability polling is conducted by opening a connection on TCP port 22 of the SDA (utilizing secure shell).

(3) Logging

From Network-based intrusion detection systems, MCI collects syslog files directly from unix machines. MCI utilizes a utility to translate eventlog into syslog on NT based machines, and then collect the resulting syslog files. If necessary, MCI will also retrieve application log files. Logs are retrieved from the IDS by the SDA and pushed back to MCI for storage and analysis. MCI collects syslog information by streaming UDP packets from the IDS to the SDA, which collects the information into a file, encrypts that file and forwards it to the MCI's SOC at regular intervals.

c. Configuration Management

MCI performs change and configuration management of the IDS. The appropriate vendor management console is used to make configuration changes on the IDS as needed. This management console can connect directly to the device if it uses an external, publicly addressed IP; or, more frequently, will connect to the Internal IP address of the sensor using the SDA, depending on the specific configuration. MCI also manages the NIDS operating system configuration to control free disk space, memory swap allocation, boot configuration, and other functions that MCI deems necessary for smooth operation. MCI also regularly update the IDS signatures for HIDS and NIDS.

d. Maintenance

MCI performs platform and application maintenance on supported Network-based IDS platforms. MCI only provides application maintenance on host-based IDS servers, and only maintains the HIDS itself, not the applications running on the box the HIDS resides on. These services include project managing hardware break/fix (NIDS only) and applying application and operating systems (NIDS only) patches, hot fixes, and service packs, but not operating system or application version upgrades.

For hardware maintenance (NIDS only), customer must have a current contract for onsite vendor maintenance, must provide MCI with the necessary information to contact the vendor, and must have enabled MCI to open a ticket with the support provider on behalf of the customer. MCI may become aware of a hardware problem by either direct customer notification or by MCI detecting a problem and isolating the fault such that hardware is identified as the specific causal agent. When MCI has isolated the issue as a hardware problem, MCI will open a ticket with the support provider to begin the clock on the needed hardware service, and notify customer that MCI has done so. MCI will then maintain contact and act as a liaison with the support provider and the customer to track the resolution of the break/fix activity until it is complete.

MCI will perform application patches or hot fixes for NIDS, and will perform operating system patches, hot fixes or service packs on NIDS. MCI determines that an application or operating system patch, hot fix or service pack is needed either by detecting a security issue on the firewall which requires the application of a patch to mitigate, or through general routine maintenance of all customer platforms. Once the need has been determined, MCI first thoroughly tests the patch in our lab, then notifies the customer and schedules the patch application. Patch application and software upgrades are performed remotely, using the SDA to interface as necessary.

e. Data Handling and Storage

Data collected from traps, polling and syslog is normalized on the SDA, and information deemed potentially significant by MCI's automated systems is forwarded to operations for analysis. The data is normalized for purposes of cross-platform correlation and root cause analysis. This normalized event data is stored in full for one month. It is

then used to generate monthly reports, after which summary statistics from the reports are archived for future reference, and the event data is deleted. Full syslog files are retrieved and archived for Premium level customer's only, and are maintained in live storage up to a maximum period as specified in the SLA, after which point they are transferred to offline archival storage media. These files will be made available for forensic analysis purposes if requested or necessary.

A.1.12.2 SecureWatch

SecureWatch is monitoring solution for customer security infrastructure. SecureWatch collects data from the customer's firewall, VPN and IDS systems and securely sends the collected data to the MCI's SOC for analysis.

a. Supported Platforms

SecureWatch is available for any make, model, or version of Firewall, VPN or Intrusion detection system that is capable of producing SNMP traps and syslog data.

b. Monitoring

MCI monitors the security device for security, availability and performance events. The monitoring is provided via the Secure Data Agent (SDA), which acts as both an SNMP poller and SNMP trap collector. The SDA also collects log file information and IDS signature alerts. The information collected is encrypted and sent to the MCI SOC for analysis.

1) SNMP trap collection

MCI receives and processes SNMP traps from the application, the operating system and the hardware. The customer must configure the monitored device to send traps to the SDA. Traps should be sent based on significant security and performance events. The primary security events that will generate alerts are firewall rules violations, authentication failures, security policy pushes, and IDS signature alert violations. Performance events will generate a trap when a performance threshold is exceeded. Performance thresholds are specific to the platform and application and must be configured by the customer, but may include excessive CPU utilization, disk space limitations, memory limitations, and excessive paging or swap file usage.

2) Polling

MCI performs availability polling from the SDA to the security device on a recurring basis. Availability polling involves making sure the security device is up and running, and each in-use and configured interface is up and passing traffic. The customer must configure the monitored device to allow MCI to perform this

polling. Additionally, MCI polls the SDA for availability from the MCI SOC on a recurring basis. Because the SDA does not accept ICMP packets (pings) from the Internet, availability polling is conducted by opening a connection on TCP port 22 of the SDA (utilizing secure shell).

3) Logging

MCI receives syslog files from monitored devices. If the device is not intrinsically capable of producing syslog files, then the customer must install a utility to perform the appropriate translation into syslog format. Logs are retrieved from the security device by the SDA and pushed back to MCI for storage and analysis. The customer must configure the monitored device to stream UDP packets from the security device to the SDA, which collects the information into a file, encrypts that file and forwards it to MCI's SOC at regular intervals.

c. Management

MCI performs NO change or configuration management of the security device. In the event that a need for a change is recognized as a result of MCI's monitoring, a MCI representative will contact the customer's designated points of contact so that they can make the needed changes if they so choose.

d. Maintenance

MCI performs NO platform or application maintenance on any of the monitored platforms. In the event that a need for a maintenance is recognized as a result of MCI's monitoring, a MCI representative will contact the customer's designated points of contact so that they can arrange for the necessary maintenance.

e. Data Handling and Storage

Data collected from traps, polling and syslog is normalized on the SDA, and information deemed potentially significant by MCI's automated systems is forwarded to operations for analysis. The data is normalized for purposes of cross-platform correlation and root cause analysis. This normalized event data is stored in full for one month. It is then used to generate monthly reports, after which summary statistics from the reports are archived for future reference, and the event data is deleted. Full syslog files are retrieved and archived for Premium level customers only, and are maintained in live storage up to a maximum period as specified in the SLA, after which point they are transferred to offline archival storage media. These files will be made available for forensic analysis purposes if requested or necessary.

A.1.12.3 OverWatch

a. Supported Platforms

OverWatch is available for any customer networked-device that is capable of producing SNMP and syslog information.

b. Monitoring

MCI monitors the device for security events only. The monitoring is provided via the Secure Data Agent (SDA), which acts as both an SNMP poller and SNMP trap collector. The SDA also collects log file information and alerts. The information collected is encrypted and sent to the MCI SOC for analysis.

1) SNMP trap collection

MCI receives and processes SNMP traps from the application and the operating system. The customer must configure the monitored device to send traps to the SDA. Traps should be sent based on significant security events. The definition of serious security events will vary from device to device, and will be fully defined during the transition phase, but will typically include authentication failures and rules violations.

2) Polling

MCI performs availability polling from the SDA to the device on a recurring basis. Availability polling is limited to making sure the monitored device is up and running. The customer must configure the monitored device to allow MCI to perform this polling. Additionally, MCI polls the SDA for availability from our SOC every 5 minutes. Because the SDA does not accept ICMP packets (pings) from the Internet, availability polling is conducted by opening a connection on TCP port 22 of the SDA (utilizing secure shell).

3) Logging

MCI receives syslog files from monitored devices. If the device is not intrinsically capable of producing syslog files, the customer must install a utility to perform the appropriate translation into syslog format. Logs are retrieved from the device by the SDA and pushed back to MCI for analysis. The customer must configure the monitored device to stream UDP packets from the device to the SDA, which collects the information into a file, encrypts that file and forwards it to the MCI's SOC at regular intervals.

c. Management

MCI performs NO change or configuration management of the monitored device. In the event that a need for a change is recognized as a result of MCI's monitoring, a MCI representative will contact the customer's designated points of contact so that they can make the needed changes if they so choose.

d. Maintenance

MCI performs no platform or application maintenance on any of the monitored platforms. In the event that a need for maintenance is recognized as a result of MCI's monitoring, a MCI representative will contact the Commonwealth's designated points of contact so that they can arrange for the necessary maintenance.

e. Data Handling and Storage

Data collected from traps, polling and syslog is normalized on the SDA, and information deemed potentially significant by MCI's automated systems is forwarded to operations for analysis. The data is normalized for purposes of cross-platform correlation and root cause analysis. This normalized event data is stored in full for one month. It is then used to generate monthly reports, after which summary statistics from the reports are archived for future reference, and the event data is deleted. Full syslog files are retrieved and archived for Premium level customers only, and are maintained in live storage up to a maximum as specified in the SLA, after which point they are transferred to offline archival storage media. These files will be made available for forensic analysis purposes if requested or necessary.

A.1.12.4 Authentication and Access Control

MCI will issue SecurID key fobs to our Customer's for authentication and access control. These key fobs are required to access information about and make changes to any MCI Managed Intrusion Detection services.

a. Key Fob Quantity

MCI will issue a maximum of two (2) key fobs per service (for example, ShadowWall and LiveWire = 4 key fobs). Note that this is per service, not per service instance; so 10 NIDS under ShadowPatrol still only get two key fobs.

b. Key Fob Assignment

MCI will request a primary and secondary point of contact during the transition process. A key fob will automatically be assigned to each of these two points of contact. If the Commonwealth should require additional key fobs, they may request them, up to the total allocated based on services purchased. For each key fob requested, MCI will

require a specific person to be assigned, and VITA will need to provide full contact information for that person.

c. Key Fob Function

The key fobs are used to provide authentication to MCI for purposes of viewing information or making service requests. They are required to access MCI's IDS web portal, which can be used to view reports and ticket status, open or modify tickets, or access intelligence services. The key fobs are also used as a means of authentication when MCI needs to verify that the person calling or otherwise contacting us is in fact who they say they are, and is an authorized agent for their company. Anyone with a key fob can request changes to or information on any IDS service to which their company is subscribed with MCI. If VITA has a service subscription that includes fee-based functions such as pay-per change requests, anyone with a key fob for that organization must be authorized to incur charges on behalf of the Commonwealth under the terms of the fee-based service.

d. Customer and Replacement Fobs

If VITA wishes to have more key fobs than are provided with the service, or if the customer needs a replacement fob for any reason, then VITA can request customer or replacement fobs from Three Pillars. Such customer or replacement fobs will incur a charge to the customer of $258.00 per fob, and Three Pillars will generally provision and send the fobs within 48 hours of VITA request.

A.1.12.5 Secure Data Agent

In order to support any of the monitoring or management services, MCI deploys rack mount customer premise equipment (CPE), known as a secure data agent (SDA). The SDA is a vital part of our service delivery, and enables our services to be provided in a secure and scalable manner. The SDA is also a key component of the fundamental architecture for MCI, as it allows us to push monitoring functionality and preliminary analysis to the customer's site. As MCI distributes capability, MCI can provide preliminary analysis of the customer data and raise critical alerts more quickly back at the operations center.

a. Hardware Specification

The hardware specifications are carefully considered in order to provide the maximum availability in a deployable configuration that can support our availability requirements. The current SDA is based on a dual processor capable Intel motherboard with a single Pentium III processor running at 933mhz. A second processor can be installed to support large device counts (greater than 30 devices), or it can be field upgradeable if necessary. The motherboard utilizes the Intel ServerWorks SE chipset for enhanced throughput and server optimization. Our initial configuration starts with 512mb RAM, which is also field-upgradeable.

In order to support higher availability requirements, hardware redundancy has been specified wherever possible. Since MCI insists on having dual power supplies, MCI has to use a 2U rack mount configuration. In addition to the Ethernet interface on the motherboard, MCI installs a quad-fast Ethernet adapter. The unit comes with two SCSI hard drives running in a software-based, RAID-1 configuration. The configuration utilizes two separate SCSI channels for the hard drives to provide a performance boost as well as enhanced fault tolerance.

In addition to these precautions, the unit is also configured with an internal modem configured to dial back to our SOC in the event of a fault or incident that impedes our ability to connect securely over the Internet. MCI also has the ability to use the serial interface on the SDA to connect to the console port of a Linux or Solaris managed device for console access, if needed.

b. Secure Data Agent Configurations

ProLiant DL380R02 P1.40GHz-512KB
256MB 133MHz SDRAM DIMM Memory (2x128MB)
2 x 18.2GB Pluggable Ultra3 SCSI 10K 1 Universal HDD
Redundant Hot Plug Supply Option Kit (DL380 G2)
Redundant HP Fan Option Kit - DL380

c. Software Specification

MCI provisioning team currently installs a tailored version of Red Hat Linux v7.1. This distribution utilizes the 2.4.2 kernel, but MCI compiles an optimized version from the 2.4.9. By compiling our own kernel, MCI disables unneeded kernel parameters and streamline performance. For example, the standard distribution enables verbose SCSI logging, which causes a noticeable performance impact when running our RAID-1 configuration. MCI only enables the required networking and hardware drivers, and where possible, use loadable modules to minimize kernel memory consumption.

All of the applications deployed on the SDA utilize Open Sources software, with Perl being our primary development language. Perl allows us to modify and deploy enhancements much more quickly that with traditional languages; however, as MCI monitors and tracks the performance of its software, MCI may optimize utilizing other languages for specific functionality.

After building the SDA for deployment, it is provisioned for a specific VITA user or agency. This process involves pushing customer device configurations and device IDs to the SDA so that collected data may be differentiated across its customer base.

MCI is continually re-evaluating the packages and kernel versions and options that are available in order to provide the maximum balance of functionality and stability for its SDA configuration.

A.1.12.6 Disaster Recovery On-site Service

MCI will deploy a Security Engineer to VITA's disaster recovery facility for the purpose of installing the IDS equipment and re-provisioning the MCI ShadowGuard service.

The Security Engineer shall:

Install the IDS systems upon the network
Update the operating systems, IDS application and signature set for the Network Intrusion Detection Sensors, and
Design and install the MCI SOC to manage and monitor the IDS

MCI will test and configure the Shadow Patrol IDS services required for VITA's disaster recovery site and will set up and configure.

MCI will upload any maintenance patches needed to keep them current via standard dial-up Internet connection. Following initial installation and set-up, physical access would be required only for the hardware maintenance in the event of a hardware failure. MCI will require dial-up Internet connectivity to the IDS devices to update them.

MCI will assist with annual Disaster Recovery test if requested by VITA. MCI recommends that the service actually go live periodically to ensure its usability during an actual disaster. MCI will support this test once a year.

DR Monthly Shadow Patrol Service – At the time of disaster, VITA would need to identify network segments to be monitored. The MCI SOC will be responsible for transition and working with the agency to turn up the service.

A.1.12.7 Reporting

Reporting is provided to VITA on a regularly scheduled basis, with interval and report detail determined by the customer service level. Reports are provided electronically in PDF format, and are available for review or download from the MCI's Secure Web Portal.

a. Standard Reporting

At the standard service level, reports are provided monthly. Each report contains the following topics:

1) Executive Summary

- General status – A summary of the overall service and threat levels

- Activity highlights – A summary and breakdown of the number and types of events recorded
- Service Status – An overall service availability and performance review
- Service summary – A summation of what services the VITA currently subscribes to
- General contact information – The contact tree MCI uses in case of an event.

2) Service Specific

- Device summary – An overall summary of the security, health and performance of the device
- Activity report – A summary of suspicious activity discovered, and actions taken in response
- Health report – Health indicators of the device
- Event report – Statistics on the number and severity of events, as well as the mean time to resolve
- Change report – Summary of changes made to the IDS, including source
- Device information – Summary of device, software, patch levels, etc.
- Device Maintenance – Summary of maintenance activity and scheduled maintenance windows.

3) Enhanced Reporting

At enhanced reporting level, detailed reports are provided monthly, and summary updates are provided weekly. The monthly reports include all of the same information available for the standard service level, plus the following additional categories:

(a) Additional Monthly Report Data

- Historical Trending – Graphing of monitored events noting trends across the last 3 months worth of activity
- Collective Intelligence – A special summary report will be created that summarizes information and activity across all of VITA's services that are at enhanced or premium service levels. This report will track trends and patterns across customer's pool of applicable devices and services, and compile information from different sources to allow cross-platform analysis. Additionally, benchmark data will be provided showing VITA's security event activity relative to the security event activity of the rest of our customer base.

(b) Weekly Report

Enhanced customers will be provided a weekly summary report covering any serious event or alert activity documented by MCI. This report will be provided via email to the designated primary VITA POC.

4) Premium Reporting

At premium reporting level, detailed reports are provided monthly, and summary updates are provided daily. The monthly reports can be customized to the Commonwealth's requirements, within the limitations of our system, data and reporting capabilities. During the transition phase, VITA will be given an opportunity to tell MCI what types of customization they would like in their monthly reports. MCI will evaluate VITA's design requirements and return a proposed report template for customer approval. After the completion of the transition phase, VITA can request reporting changes as a change request. MCI will evaluate the feasibility of the proposed reporting change and provide an answer as to whether MCI will be able to support it within 96 hours. The actual change will be implemented as quickly as possible, not to exceed 30 days from approval of reporting change request. By default, the monthly report will include all of the same information available for the standard and enhanced service levels.

(a) Daily Report

Premium customers will be provided a daily summary report covering any serious event or alert activity documented by MCI. This report will be provided via email to the designated primary customer POC.

A.1.13 Enterprise Security Service

MCI Enterprise is a comprehensive security assurance and certification program that addresses all aspects of pro-active information security, from network and system analysis to physical and policy inspection. The program integrates multiple security practices and procedures to help VITA identify and mitigate risk to critical IT assets, and then assists VITA in maintaining an essential level of security "health" across its enterprise. Compliance with MCI's set of Essential Security Practices results in industry-recognized certification, providing VITA with confidence and assurance that its mission-critical e-business systems, networks, applications and physical environments are protected against all forms of threats. **See Attachment L for details of the service.**

A.2 VOICE COMMUNICATIONS SERVICES

A.2.1 Outbound Long Distance

a. Access Considerations

MCI provides the Commonwealth access to its Network over a variety of access means, whether Centrex or PBX access trunks or Business Telephone Line environments. The pricing is a flat rate and is determined by the type of access and egress used.

b. Utilization of Long Distance Service in Centrex Environments

The Centrex Automatic Route Selection (ARS) feature is used to access the MCI long distance network to place outbound long distance calls. The Service objective of P.01 or better will be met, once the call has accessed the MCI network.

c. Utilization of Long Distance Service in Legacy and LAN Based PBX Environments

MCI uses the On-Net long distance service at all VITA locations that are currently in a PBX environment. Access is achieved either via dedicated T3, dedicated T1, Digital Gateway or ISDN PRI trunks. Should the routing software of the PBX be unable to access a dedicated access facility, the call will be routed to a LEC trunk, which is an independent function of the premise-based equipment. Should the PBX not have the capability to route calls to multiple access types, the users will dial a specific access number. In either situation, MCI will carry the long distance call. Commonwealth users may dial either a 10 digit call, a 1+10 digit call, a 011+ international bound call or a private dialing plan number, that has been pre-established by the Commonwealth and/or that using entity.

d. Utilization of Long Distance Service in Business Telephone Line Environments

MCI accommodates end-users within the Commonwealth that utilize business telephone lines to access the MCI long distance network. Users may access the network by multiple dialing methods, included 1+NPA+NXX+XXXX, 0+, IDDD as well as 1+700+NXX+XXXX private dialing numbers. MCI uses a single PIC code (222) to carry voice traffic over its network. It has the ability to turn up a switched location using business telephone lines in as few as 3 business days.

e. Outbound Long Distance Features:

1) Choice of Access Types

   a) Dedicated Access Lines for traffic that originates and/or terminates on dedicated access facilities provisioned to the customer's site by MCI or ILEC, on MCI's behalf (This also includes customer-provided access.)
   b) Switched Access (ANIS) for traffic that originates and/or terminates on independent local exchange carrier (other than MCI) owned and operated facilities
   c) Local Network for traffic that originates and/or terminates on MCI-owned and operated local facilities

2) Accounting/ID Codes- Agencies can use Accounting Codes for cost management purposes.

   Users are prompted for a code after dialing the phone number. A code must be entered to complete the call. Accounting/ID Codes can be placed on DAL groups or ANIs.

3) 10/15- Digit Restriction- Specific individual 10- or 15-Digit unauthorized phone numbers can be blocked from being called. This feature cannot block calls to 800 or 900 numbers.

4) Range Privileges (Customized/Universal)- Universal Range Privileges allow Agencies to assign calling range privileges to employees. Customized Range Privileges give Agencies the ability to select which foreign countries their employees may call:

   - Range 0 = Local calls (No On-Net calls).
   - Range 1 = On-Net numbers (7, 10-digit, and Variable Length Private Dialing Plan numbers).
   - Range 2 = Range 1, plus 10-digit off-net numbers in the U.S. (including AK and HI).
   - Range 3 = All ranges/all calls (On-Net Cards excludes high fraud international locations*).
   - Range 4 = Range 2, plus all North American Numbering Plan locations. No 011+ calls.

5) Private Dialing Plans- can be either 7-Digits or 10-Digits. Dialing Plans can force calls onto DAL terminations for a lower cost per minute, without user intervention.

6) Toll Free Remote Access- Provides service to traveling employees who must place private dial plan calls.

7) Calling Station Identification- Easily identifies the originating extension of each outbound call from PBX or Centrex locations, thereby improving cost allocation and control.

8) Global Voice VPN Services- Outbound voice product providing both national and international Virtual Private Network (VPN) services from an Intelligent Networking architecture. Link their worldwide sites together for transmission of voice, fax, and low speed data traffic. VPN is considered "virtual" because it is software-defined and managed, whereas actual private network is hardware managed.

9) Instant/Virtual Ringdown- provides a quick connection between two sites without having to dial digits. This Ringdown can only originate on a DAL. However, termination may be dedicated or switched.

10) Network Call Redirect- Controls potential congestion of calls by sending overflow calls to a pre-determined alternate routing group via a customer-defined Routing Table, when the intended call termination is busy.

11) Point of Origin Routing- Enables an Agency to designate an alternative DAL by overriding the DAL specified in the dialing plan. The Data Access Point (DAP) overrides the DAL specified in the dialing plan based on the originating switch and intended terminating switch.

12) Remote Exchange/Virtual FX- provides a local identity even when the terminating location is remote and/or centralized. Central Office sends the call to the MCI switch. The number is converted at the switch to the specified Dialed Digits. The switch then queries the DAP for routing instructions to terminate the call (distant end).

A.2.2 Inbound Domestic Toll Free Service

A.2.2.1 Inbound Domestic Toll Free Services

MCI Toll Free service provides Toll Free inbound calling over the MCI network. Toll-free calls use MCI's enhanced product offerings.

a. Features:

1) **Network Call Redirect-** Agencies can control potential congestion of calls by sending overflow calls to a pre-determined alternate routing group (Dedicated Access Termination or Business Line Termination) via a customer-defined Routing Table when the intended call termination is busy.

2) **Percentage Allocation Routing -** Percentage Allocation Routing distributes callers of a toll free number to two or more answering locations, based on a your designated percentage distribution. This feature provides MCI Toll Free customers with the ability to route calls based on staffing levels or available trunks.

3) **Geographic/Point-of-Call Routing-** Point-of-Call Routing allows calls made to a single toll-free number to terminating at different locations based on each call's point of origin (defined by international toll-free country, state, area code or area code and exchange).

4) **Call Area Selection/Tailored Call Coverage-** Block incoming calls from one or more specific originating areas at the domestic NPA or state level

5) **Day-of-Year/Holiday Routing-** Calls to a single toll free service telephone number can be routed to different locations based on the day of the week or a customer-specified holiday or key event.

6) **Time-of-Day/Time Interval Routing -**Based on the time of day, this allows calls made from a single toll free number to terminate at different answering locations. It also provides Agencies with the ability to accommodate after-hours traffic.

7) **Day of Week Routing** -Agencies can establish a different routing arrangement for each day of the week, with a maximum of seven-day types. There must have at least two locations for this routing feature to be applicable.

8) **Dialed Number ID Service (DNIS)** -Agencies with multiple inbound service telephone numbers terminating in the same location can identify the specific toll-free service telephone number which was dialed by the calling party. DNIS is available to Dedicated terminations only.

9) **Supplemental Codes** -Provides a means to track and control toll-free calls by assigning a specific number (up to 11-digits) that must be entered after dialing the toll-free number. Two types of supplementary codes are available: Account Codes and Identification (ID) Codes. With ID codes, the calls are not completed until the switch verifies the codes for accuracy. Account Codes are not verified by the switch.

10) **Toll Free Reporting**- Comprehensive traffic statistics give customers important information about calls placed to VITA toll-free numbers. Traffic Reporting allows VITA to access both statistical and call detail information, each within just five minutes of a call attempt. This information can be used to:

- Monitor network performance
- Reduce long hold times

- Manage agent staffing requirements
- Manage telecommunications resources

11) **Real Time ANI**- Receive the telephone number of the calling party as a component of call setup. ANIs can be transmitted via Multi-Frequency (MF), Dual Tone Multi-Frequency (DTMF), or ISDN PRI format.

12) **Extended Call Coverage** – Allows origination of calls from Canada.

13) **Cross Corporate Identification Routing (CCID) -**This feature allows Agencies to route their toll-free calls to another service termination not on the same corporate ID, due to an increase in call volumes, lack of staffing, or lack of facilities to manage their toll free calls. CCID can be used in conjunction with all MCI Toll Free routing features. MCI will deliver the invoice for traffic routed through CCID to the billing address of the inbound service Corporate ID of the location at which calls are terminated, or to the customer-of-record of the inbound service.

14) **Exchange Routing-**This feature allows an Agency to define two or more originating routing groups and to arrange calls to a single toll-free number placed from different routing groups will terminate at different locations. A routing group can consist of any combination of domestic NPA/NXXs.

15) **Alternate Routing-** Pre-defined alternate routing arrangements can be activated upon command in the event of an emergency such as power outages, natural disasters or other service disruptions. Agencies can pre-define up to 99 alternate routing plans. There must be at least two different locations for this routing feature to be applicable.

16) **Disconnect Message Referral (DMR)-** Agencies who disconnect or change a toll free number can request a recording that either informs callers that the toll-free number has been disconnected, refers calls to a new number, or refers callers to a new number with an option to extend the caller to the specified destination. The call may either terminate after the message announcement or proceed to another function. *This referral will be active for 90-days*. After 90-days it must be re-activated, or it will expire. The new number that callers are referred to can be another toll free number, a local number or a long distance number.

17) **International Toll Free (UIFN, Global Business Line)-** An added feature of International Toll Free Service (ITFS). Universal International Freephone Numbers Service allows a caller to dial a Freephone (toll free) number from a participating country by dialing the international access prefix followed by non-geographic country code of 800 and eight customer specific-digits.

18) **Multi-Manager/Multi-Carrier Service -** Allows agencies to split their traffic between two or more IEX Carriers. MCI must be the controlling Resp Org

(Responsible Organization) of the toll-free number(s) for this feature to be offered. It is the industry's first Integrated Management Service that allows customers to take advantage of a multiple carrier network.

b. The typical sequence of call processing events is outlined as follows:

- A public network caller dials an 800, 888, 866 or 877 Toll Free number, accessing a LEC subscriber switch.
- The LEC accesses its 800 Service Management System (SMS) database to determine the carrier of record for the number dialed.
- Upon determining that MCI is the assigned carrier, the LEC passes the call to MCI over existing FG-D switched access facilities. In most cases, SS7 signaling is used between the LEC and MCI Class 3 switches.
- The MCI Class 3 switch queries a DAP for routing instructions for the call. The call is routed to either a dedicated access trunk group or translated to terminate to a public network number over LEC facilities.
- The MCI switch initiates a CCS7 signaling message to establish a DS0 circuit connection to the destination Class 3 or LEC switch.
- The end-to-end circuit connection is established.

If network-based intelligent features such as voice response menu prompting are ordered, the call is connected to an Enhanced Service Platform before it is passed to the destination. MCI uses several platform types with varying specialized capabilities, such as menu routing, message announcements, database routing, Speaker Independent Voice Recognition (SIVR), Call Redirection, and Network Queuing. For instance, the Next Generation Service Node (NGSN) supports MCI's most advanced Toll Free features such as network queuing; other platforms may also be used depending upon the subscribing agency's application.

MCI Toll Free service provides connection from on- or off-net locations through the LEC to MCI's POPs.

MCI's Toll Free service provides extensive control over the real-time routing of the network. The MCI Toll Free portfolio includes advanced routing and termination features, International Toll Free service, management support, information management tools, and Enhanced Voice Services. All toll free numbers receive a free listing in the national Toll Free Directory Assistance Database.

c. MCI Toll Free Additional Facts

MCI furnishes the ability to terminate multiple Toll Free numbers on a single line, allowing the Commonwealth to support more than one Toll Free application.

With MCI Access Integration, dedicated digital or analog access lines can carry both inbound and outbound traffic over the same channel. Additionally MCI provides Toll

Free Digital Service that allows the Commonwealth to use the same Toll Free number for voice, video and image applications.

A.2.3 Inbound Toll Free "800" Service- Based Voice Processing Services

Interactive Voice Response

MCI Enhanced Call Routing (ECR) is a network-based IVR using toll free service. ECR uses a combination of the caller's menu choices, the originating ANI, time of day, database lookups, caller-entered digits, and optional advanced ICR Integration to determine where to terminate the call. If callers need to talk to another department to conduct further business, they can be transferred directly to that department through ECR without having to make a new call and without tying up company ports.

a. Features:

Menu Routing. Enables callers to choose the path to reach a specific person, department, location or message announcement.

1) **Recorded Announcements**

a) **MCI Message Announcement**. With ECR Message Announcement, the caller hears a pre-recorded promotional or informational message prior to, during, or after the call is routed to the caller-selected destination. Message Announcement gives users the ability to provide timely information to their callers. This feature may meet the callers' needs without further routing or provide additional information during call processing. It also lets MCI answer their calls during peak periods and hold the calls in the MCI network for up to one minute. No DTMF input is required.

b) **MCI Remote Audio Update**. Remote Audio Update allows users to make real-time (within 15 minutes) updates to their audio messages that callers hear. Using their assigned ID number and Password, customers can dial into their application message and modify or review it.

2) **Database Prompted Call Routing**

a) **MCI Standard Database Routing.** This feature enables calls to be automatically routed to the appropriate destination based on a customer-designed database of the caller's phone number (ANI), time of day, day of week, or caller-entered digits (CED) such as ZIP code or account number

b) **MCI Advanced Database Routing.** Advanced Database Routing works similarly to Standard Database Routing, but is more complex. Advanced Database Routing provides MCI customers with the ability to make real-time updates to their own internal database records

3) Text-to-Speech

The capability to generate speech through the use of pre-recorded messages based on data contained in a database.

4) Multiple Language Support

English and Spanish are standard offerings of ECR voice talent. Other languages are also available for a slightly higher cost.

5) Supervised Call Routing

MCI Announced Connect. Sometimes referred to as "whisper," Announced Connect provides a customized message to the called party before the caller is connected, alerting the called party with certain information about the caller (i.e., account number, ANI). Announced Connect can also alert the called party as to the nature of the call and can allow pre-access of pertinent customer/caller records or other stored information

6) Release Link Call Transfer

MCI TakeBack and Transfer (TnT). This feature allows the called party to transfer a call to another location or to give control of the call back to the caller to make additional call routing selections

7) Busy Line/Ring No Answer Redirect Routing

MCI Busy/No Answer Rerouting (BNAR). If a call reaches a busy signal or is not answered within a specified time (number of rings), BNAR automatically reroutes the call to a pre-specified alternate location or recording.

8) Caller Redirected Calls

a) **MCI Caller TakeBack.** Caller TakeBack allows a caller to return to the ECR menu to make additional call routing selections, or can access "hidden" menus not available during the initial selection process.

b) **MCI Host Connect.** Host Connect is an enhancement to the ECR product line that allows the ECR platform to connect to a customer’s data

management system. It provides communication between the caller and data at the customer site through the MCI network.

A.2.4 Translation Service

COVANET offers Translation Services to enable English-speaking users to communicate with others who speak a foreign language, or use English as a second language. The following features are provided:

- 24 hours a day x 7 days a week availability
- 200 languages supported
- Certified interpreters with industry specific backgrounds (i.e., advertising, aerospace, banking, computers, electronics, engineering, entertainment, insurance, legal, medical, and more)
- Access via MCI Toll Free Service at COVANET dedicated termination rates

A.2.5 T-1 Digital Gateway Service

MCI Digital Gateway service provides high capacity dedicated T-1 access/egress from COV premises to the serving MCI terminal with a capacity equivalent to 24 individual special access channels. This service can be configured to support data, voice, or a combination of data and voice applications. The digital gateway access provides a dedicated connection to the public network and the Commonwealth's own private network. It can be used in conjunction with a combination of the following services: Frame Relay, ATM, 800, On-Net, Private Line and Voice services. Equipment will be required at the customer premises to terminate the T-1 facility; the type of equipment required will depend on the services being requested.

A.2.6 Operator/ Public Payphone Service (Commission Plan)

Operator / Public Payphone Service provides for the payment of commissions to the Commonwealth on domestic and international long distance calls that originate from state-owned phones as well as state public payphones where the caller requires the assistance of an operator to complete the call.

Commissions will be paid on “0+” calls where the caller is assisted by an operator to place a station-to-station call, person-to-person call, collect call, or wishes to have the

charges for the call billed to a third party's telephone number. These commissions will be paid to enrolled service locations, based on the operator assisted call revenue. Payphones enrolled in the Operator Service Pay-phone commission plan are located on state premises.

Operators are accessible 24 hours a day, seven-days-a-week. The following list outlines the operator services that are available to the Commonwealth.

- Assistance for domestic and international station-to-station, person-to-person and directory assistance calls.
- Operated-assisted dialing to all international terminations and international general assistance.
- Foreign language assistance in Arabic, Hebrew, Polish, Cantonese, Hindi, Portuguese, Czech, Italian, Romanian, English, Japanese, Russian, French, Korean, Spanish, German, Mandarin, Tagalog (Philippines), and Vietnamese.
- Direct transfers to MCI Customer Service for credit information, miscellaneous assistance, and trouble reporting.
- Operators can provide rate quotes for all operator-assisted call types. Quotes are based on call type, distance, duration and time of day.
- Dialing instructions to access another carrier or to place local or long distance operator-assistance calls.
- Connection to emergency services (fire department, police, ambulance, bomb threat and poison control).
- General assistance such as dialing instructions, area codes, country codes and city codes and time of day information (across time zones worldwide)

MCI provides Value Added Operator Services for Premise Owners. MCI will distribute commission earnings at multiple organizational levels within the Commonwealth, from agency to individual facilities and satellite locations. Additionally, MCI provides detailed service reporting to enhance the ability to efficiently manage telecommunications services. MCI can distribute this reporting to multiple organizational levels with varying degrees of detail.

A.2.7 Calling Card Service

MCI's domestic and international calling cards offer the Commonwealth a convenient and easy method of communicating when out of the office or the country. The MCI Calling Card offers standard calling card capabilities such as number re-origination, range privileges- that allow the calling areas to be completely customizable for fraud and or expense control, and private dialing plans.

MCI Calling cards offer card portability, which allows users to port an existing competitor card number to MCI. Card Selectability allows customers to choose the length of the calling card number. Card Numbers can be between 7,8,9 or 10 digits long, plus a 4 digit PIN number.

In addition MCI Calling cards offer additional enhanced features such as speed dialing, conferencing, News Flash, MCI Messenger, customer service access, dialing instructions and MCI Paging access.

MCI Calling cards are sent to VITA in an inactive state and are then activated by VITA by dialing into the customer configuration management system. The cards will be provisioned as outlined in Attachment C Section 5.

Private Label and Custom Cards- If Agencies want to have a unique look for their cards, they can create a private label card – where MCI will add their department logo to the front of the calling card, or a custom card – with artwork that the Agency provides. Private Label cards can be ready in four weeks and can be ordered in any quantity. Custom cards are ordered in quantities of 1,000.

A.2.8 ImagePort Fax Service

MCI provides an ImagePort Fax Service product that allows traditional fax and integrated Web technologies such as Internet-based fax management, list creation and maintenance, tracking and administration. This service enables sending to and from fax machines, e-mail, mainframe systems, and the ImagePort Web page. ImagePort supports virtually any type of fax application including desktop-to-fax, broadcasts, customized documents, and faxing on demand via a document library. This service includes:

- Standard Outbound Fax – Users can send individual fax messages, or broadcast the same document to thousands, from their desktop.

- Custom Outbound Fax – Recipient-specific data is received from the customer and applies that data to the customer's forms or documents, and faxes it directly to the recipient's fax location.

- Inbound Fax – The service automatically receives each fax sent to the customer's toll free number, reformats it as appropriate for its customer-specific delivery destination, and routes it there. Standard delivery destinations include fax machines and email addresses.

Overview

ImagePortSM + Fax is a fully managed, IP-enhanced outsourcing solution for all COVANET customer's inbound and outbound fax needs. It supports traditional fax and integrated Web technologies (Internet-based fax management, list creation and maintenance), as well as tracking and administration. With this service, COVANET customers can send to and from fax machines, e-mail, mainframe systems, and the ImagePort Web page. ImagePort supports virtually any type of fax application including desktop-to-fax, broadcasts, customized documents, and faxing on demand, via Document Library.

With ImagePort Standard Outbound Fax service, COVANET users can send individual fax messages or broadcast fax messages to as many as 10,000 recipients from the desktop. This standard setting provides complete Web-based capabilities and reporting tools, and multiple message submission and access methods. It is designed for sending high volumes of time-sensitive messages.

ImagePort Outbound Custom Fax service is designed for users who use a standard form or document background, but require personalized or customized text (or graphics) for each recipient. Examples include account statements, invoices, health and dental claims, or purchase orders. COVANET users store their forms or documents on ImagePort in electronic format. Once the forms are in place, they initiate outbound fax delivery by sending files that contain each recipient's specific information and/or data for the stored forms or documents. MCI then integrates the recipient information and the form into a document tailored for the recipient, and sends it out instantly as a fax. The service acts as an electronic stationery cabinet and a virtual printing, processing and delivery system.

ImagePort Document Library stores documents that are available 24 hours a day. Through the use of an automated menu, documents may be faxed to the requestor.

A.2.9 Prepaid Calling Cards

The Prepaid Card is a product that allows the Commonwealth customers to make long distance phone calls using prepaid minutes, rather than being billed after the minutes are used. The cards are programmed with a predetermined amount of phone time on each card. The phone time of each card is referred to in minutes or units. One minute of calling within the U.S. costs one unit, and one minute of calling outside the U.S. could cost multiple units, depending on the country called. Because the cards are bought in advance, no usage invoices are created.

a. Site Installation

Site Owner agrees to allow MCI to install vending machines on Site Owner’s property for the purpose of dispensing MCI PrePaid Cards. MCI may elect to remove machines or install additional machines, if in MCI’s discretion, such installation or removal is warranted based on sales. The installation of additional machines or removal of machines will not alter Site Owner’s obligations under this agreement. Site Owner shall not obtain any ownership rights in the vending machines provided by MCI.

The vending machines shall be installed indoors, in a safe, secure and weather protected area with prior site approval of Site Owner and MCI at no cost to Site Owner. Unless otherwise agreed, the vending machines shall be maintained and repaired by MCI’s service provider at no cost to the Site Owner. However, the Site Owner shall

supply electric power for the vending machines and access to such machines whenever necessary for MCI's service provider personnel.

b. Price/Commission

Site Owner shall remit to MCI the rate as indicated in B.2.9 which will be represented in an equivalent dollar value on the card, without regard to whether the MCI PrePaid Card is distributed to End Users. Site Owners may deduct from such payments a commission to which Site Owner is entitled and shall pay to MCI an effective rate as set forth below.

1) Nothing in this agreement shall prohibit Site Owner from sharing its commission, in whole or in part, with End Users in order to promote its own business needs or objectives. In such event, the MCI tariffed rate paid by an End User will consist of the amount actually paid by the End User to the Site Owner, plus an amount equal to the "shared commission" (or the amount equal to the difference between the MCI tariffed rate and the amount actually paid by the End User to the Site Owner for the MCI PrePaid Card.) Site Owner may not charge End Users a rate in excess of MCI's tariffed rate, which may be changed from time to time by MCI.

2) Site Owner shall be responsible for all aspects of collection of MCI Prepaid revenues from End Users.

3) From time to time, governmental or other regulatory authorities may require MCI to collect or pay amounts not covered by the rates and charges set forth herein. Upon notice to Site Owner, MCU may adjust its rates and charges to recover such amounts.

c. End User Call Rates

1) End User rates will vary by country.

2) Each End User completed call using an eXpress! Card will incur a surcharge that will vary by country.

3) End Users making calls from payphones will incur a payphone use charge for each completed call in accordance with the Tariff

4) Full minute rounding and rounding to the closest whole cent per call will apply.

5) End User call rates and features are subject to the Tariff, which MCI may change from time to time. MCI reserves the right not to pre-activate any PIN's that are not pre-activated prior to a change in End User rates or features.

d. Fulfillment/Activation/Expiration

MCI shall design, produce, print and distribute MCI prepaid and associated fulfillment packages to Site Owner. Site Owner is responsible for maintaining and stocking the vending machines.

Each order for MCI prepaid must equal or exceed one hundred fifty dollars ($150.00), net of any invoiced amounts for taxes, surcharges or fulfillment or shipping-related charges, per location to where cards are to be shipped.

MCI will pre-activate the MCI prepaid and make it ready for distribution to End Users. Within twelve (12) months after such pre-activation, the End User must activate the MCI prepaid by calling a toll free number printed on the card and entering the PIN. Site Owner must distribute MCI prepaid in a manner that provides End Users a reasonable opportunity to activate their MCI prepaid. MCI prepaid will expire and cannot be used by End Users to obtain telecommunications services or enhanced services twelve (12) months after activation by the End User.

e. Marketing

Site owner shall permit MCI to place a reasonable amount of advertising and/or promotion materials.

f. Definitions

1) "Affiliate(s)" of a party or other entity refers to a corporation, partnership, joint venture or other entity, directly or indirectly, through one or more intermediaries, controlling, controlled by or under common control with such party or other entity.

2) "End User" refers to any individual who has purchased or otherwise received lawfully MCI prepaid from a Site Owner in accordance with the terms of this Agreement.

3) "Fulfillment" refers to the printing and packaging of MCI prepaid in card form with instructions, terms and conditions affecting use.

4) "MCI Prepaid" refers to MCI's eXpress! Card, an MCI branded prepaid international surcharge calling card product and MCI branded unit based prepaid calling card product, which provides End Users with long distance calling value in the amount specified in the card's front in U.S. dollars for use in making long distance calls on MCI's network and/or accessing Enhanced Services. Calls can originate domestically and terminate domestically or internationally.

5) "PIN" refers to each unique numeric code that is necessary for End Users to access MCI prepaid for usage.

g. MCI Obligations

MCI shall provide the long distance network via which service is provided, and twenty-four (24) hour call completion support. In addition, MCI shall provide End User with customer service as set forth in the Tariff.

MCI shall provide designated toll-free numbers and the systems necessary to permit End Users to use the activated MCI prepaid card.

MCI shall initially offer MCI prepaid in English and Spanish. Additional languages may be offered at MCI's discretion.

MCI shall be responsible for the proper application of authorized activation procedures according to the terms of this Agreement.

h. Refunds

Except as specifically authorized by MCI in writing, any refunds issued by Site Owner are the sole responsibility of Site Owner, and shall not affect Site Owner's responsibility to make complete payment to MCI. Any MCI prepaid activated and issued by Site Owner to End Users in lieu of refunds shall be at the sole discretion of Site Owner and shall not affect Site Owner's responsibility to make complete payment to MCI.

i. Risk of Loss, Security and Fraud Control

1) Upon delivery by MCI, Site Owner shall:

    a) bear risk of loss for MCI prepaid and shall be responsible for the proper handling, security, all risks of physical damage, and protection from theft, fraud and misuse of MCI prepaid, including PIN's and recharge; and

    b) be responsible for all losses, damages, claims resolution and liability associated with MCI prepaid distributed by Site Owner, its agents or distributors, including but not limited to, replacement costs for MCI prepaid and the MCI prepaid fulfillment packages, and any liabilities owed or credits issued to bona fide purchasers for the value of MCI prepaid.

2) MCI shall be responsible for the proper handling, all risks of physical damage, protection from theft, and security of MCI prepaid until delivery of the MCI prepaid to Site Owner (or Site Owner's designated agent or vendor.).

3) MCI shall have the right and Site Owner shall have the right to request MCI to deactivate prepaid cards or PIN's, or batches of cards or PIN's, in the event MCI or Site Owner reasonably believes these cards have been improperly activated or are the subject of fraud. MCI shall retain final discretion on all deactivation decisions.

A.2.10 Audio Conferencing Service

MCI provides three service levels of audio conferencing service. Each provides a variety of features that may be combined on a call-by-call basis.

a. Premier Service

Premier Service provides the highest level of service for any group size and is recommended for analyst meetings, focus groups, press conferences, and other highly visible audio conferencing events. A Meeting Manager and Conference Coordinator, assigned with this service, ensure COVANET's expectations are met before and during your audio conference. Premier Service is available with all audio conferencing access types; however, certain advanced features are only available with Premier Service.

b. Standard Service

Standard Service is provided for internal employee meetings, sales/marketing meetings, and project meetings. With Standard Service, the user can easily recall a Conference Coordinator for assistance by pressing *0 on the telephone keypad. Standard Service is available with all audio conferencing access types.

c. Unattended Service

Unattended Service is provided for experienced participants. To enter into an Unattended Service call, each participant first dials a number and then enters a numeric passcode using their telephone keypad. A Conference Coordinator is available for technical problems and is easily requested by using your telephone keypad. "Instant Meeting "allows users to obtain a personal conference bridge that can be used at any time without having to make a reservation.

d. Integrated Services

Audio conferencing can be integrated with many other services available from MCI for simplified pricing and combined discounts. MCI provides Local Service (in many locations), Toll Free, and Long Distance voice services, and a full range of other voice and data products and services. COVANET and its customers may select any combination of features in a Service Level at the same per-minute rate. Additional features may be added for a nominal fee.

A.2.11 Video Conferencing Bridging Service

MCI offers two different Video Conferencing Bridging Service, ISDN based and IP based.

Table A.2.11 ISDN Video Conferencing Service Levels

Service Levels	
Type	**Description**
Premier *Ideal for high-visibility meetings, including investor relations calls, focus groups, and press conferences*	Offers highest level of support to assist you in implementing worldwide conferences of any size. A Conference Coordinator or Meeting Manager works with you before and during the meeting and monitors the call to maintain overall quality. Meeting Managers oversee a staff of Coordinators; there is an optimized ratio of Coordinators to participants. The Conference Coordinator greets each caller, assists participants in connecting, performs a roll call of all participants, and notifies the conference leader when all participants are present. ..... Premier Service is available with all Videoconferencing access types; however, certain advanced features are only available with Premier Service.
Standard *Ideal for regularly scheduled calls, such as medium to large internal employee meetings, project management, or team meetings.*	Provides a Conference Coordinator to greet, announce, and place participants into the meeting. Coordinators will scan the conference to check for quality and then disconnect. Meeting Managers ARE NOT assigned for Standard Service. Standard Service is available with all Videoconferencing access types.
Unattended *Designed for experienced conferencing users. Ideal for staff meetings, training, and project management calls.*	Enables you to perform a call without the assistance of a Conference Coordinator. Participants enter the call by dialing a number and entering a passcode. Meet Me numbers are provided for easy access to the scheduled videoconference. Unattended Service is available with Meet Me access only.

a. ISDN Standard Features

The following features are standard with every videoconference:
Compression Methods (H.320 [H.261 & H.263]). H.320 is an umbrella standard developed by the International Telecommunication Union — Telecommunication sector (ITU-T) that allows dissimilar videoconferencing systems and videophones to communicate with each other.

1) **Confirmation.** Customer contacts will be notified by e-mail or fax of all reserved videoconferences. Details include the time, duration, participating sites, and conference title and leader, if provided.

2) **Meeting Assurance.** This is a complimentary service that provides a corresponding audio conference for every videoconference. In the unlikely event of a technical issue, this free service enables the meeting to continue as planned.

3) **Roll Call.** The Conference Coordinator conducts roll call when the meeting begins. This feature must be requested at the time of the reservation.

b. ISDN Optional Features

1) **Audio Add-On.** If conference attendees do not have videoconferencing access, MCI can connect participants to the conference with an audio-only connection. MCI can add virtually any number of Audio conferencing participants to expand their videoconference.

2) **Conference Room Scheduling.** This feature provides a corporate scheduler for all activities that take place in conference rooms. MCI Conferencing sends a list of all registered room activities for organizations to post. This service requires that COVANET customers use MCI as their only scheduler for all meetings conducted in their registered rooms. Conference Room Scheduling is available on the Internet via E-Scheduling.

3) **Continuous Presence.** This option enables participants to view up to nine sites on their video screen at one time and is best when used with smaller groups of people at each video site. It enables participants to view all the other participants on the video call at the same time for round table discussions or interactive meetings.

4) **Multiple Control Unit (MCU) Cascading.** To expand the port capacity, MCI can connect multiple MCUs when needed. Users must have compatible cascadable ports available on the bridge.

5) **Presentation Mode.** This feature allows a presenter to view multiple far-end sites, while all other participating sites view only the presenter.

6) **Public Rooms.** MCI provides referrals to more than 800 public videoconferencing rooms worldwide. MCI can assist travelers with locating a convenient rental room and reserve their video calls. To learn more about scheduling a public room in a specific country, simply call one of the MCI reservation numbers

7) **Transcoding.** This feature allows participants at dissimilar CODEC speeds to participate in the same videoconference.

8) **Video Meeting Manager.** This manager acts as the single point of contact to help you plan, execute, and evaluate calls with six or more sites. Based on the requestor's needs, the Video Meeting Manager assembles a team of skilled professionals and works through a detailed checklist to strive to achieve all of your objectives. (Available with Premier only.)

Table A.2.11.1 ISDN Video Conference Access Methods

Access Methods			
Type	**Description**	**Service Level**	**Comments**
Dial Out *MCI calls out to participants*	A Conference Coordinator originates the multipoint videoconference for each site participating in the call 10-15 minutes prior to the conference. Both domestic and international calls may be Dial Out. Transport charges for Dial Out calls will be included on the videoconference invoice.	Premier and Standard	
Meet Me *Participants call into MCI bridge*	Participants dial into our bridge using a standard long-distance phone number assigned by MCI Conferencing. Participants are responsible for their own long distance charges. This service is recommended for experienced video users only.	Premier, Standard, and Unattended	*Dial-in video numbers can be obtained 20 minutes before the start time of your call.*

c. IP Videoconferencing Services Overview

MCI and Wire One provide Videoconference Bridging Services (video conferencing) to the Commonwealth. Video conferencing is live interactive image and voice communication between two or more locations. With the IP Videoconference Bridging Services provided to the Commonwealth, users have the capability to conference with a pair of users or hundreds of sites. In addition, tools and services are provided to assist in

scheduling, coordinating, and conducting a successful videoconference. Participants can be reminded with e-mail notifications, and operator services can be easily utilized by dialing '000.'

1) IP Videoconference Access

Commonwealth agencies and COVANET users that desire video conferencing services can access these services in multiple ways. Video conferencing can be enabled over standard COVANET access using the H.323 protocol. Also, if a COVANET connection is not available for a site that wishes to join an IP Video Conference, MCI ISDN can be used to access the videoconference bridge. The COVANET backbone will have a DS3 gateway into the Glowpoint network specifically for videoconference users.

2) Service Description

All subscribed H.323 COVANET users will have access to the following features and services:

- End-Point assigned E.164 phone number dialing instead of IP address.
- Unlimited on-net (COVANET) H.323 IP network connectivity between subscribed and non-subscribed H.323 end-points
- Non-scheduled, non-attended user ISDN gateway service to reach publicly accessible H.320 destinations as well as inbound ISDN system access to subscribed COVANET H.323 users.
- Dial '000' video operator services for directory, trouble reporting, user dialing instruction, managed conference assistance, and for creation of ad-hoc multipoint conference call initiations
- Network managed conference services that include:
- Use of web scheduler, e-mail, or phone to schedule conferences
- E-mail confirmation of conference parameters
- Multipoint speed matching
- Multiple viewing modes including continuous presence, voice activated, and lecture
- No cancellation fee prior to conference start time
- Conference initiation test 15 minutes prior to start time at no charge
- Phone audio add-in participants as part of a managed multipoint call
- Web conference streaming as part of a managed multipoint call
- On-demand content services of archived conferences
- Digital archive and forwarding of recorded conference calls
- Scheduled call-launching of point-to-point calls
- Assigned ISDN inbound 700 direct-dial numbers
- Low-cost IP to international ISDN gateway destinations

- Personal video systems call-forwarding features like 'Send all Calls', 'Forward Audio To Voice Mail', 'Forward on No Answer', and 'Forward on Busy'
- Private customer IP network integration services to accommodate firewalls, Network Address Translations, and local H.323 enterprise equipment
- Web Access to customer video usage and billing information, including video system usage tracking by customer user, department, system, or group via calling codes
- Scheduled H.323 end-point remote software push services (as allowed by end-point and local customer premise security policy)
- Proactive network monitoring of end-point and network equipment operability status with off-line condition reporting

d. Schedulepoint

Schedulepoint is the provided web-based scheduling system. It allows end-users to schedule video units and conference rooms in real time, and provide e-mail notification of the conference to participants. This system also provides end-users with access to all conferences that have been scheduled for their agency. Also, a toll free number is provided that can be used to schedule conferences or to check on reservations.
In addition to standard scheduling functions, Schedulepoint provides the following features:

- Room scheduling
- Repetitive conference scheduling
- Multiple viewing options
- E-mail notification to all participants
- Graphical display of conference reservations
- A multi-tiered security to control the access users have to the system

e. Glowpoint

The video conferencing provided to the Commonwealth utilizes the Glowpoint Network using H.323. Glowpoint is a network engineered and designed specifically for video conferencing.

A.2.12 Voice Portal Services

MCI Voice Portal Services

Voice Portal is part of MCI's suite of automated speech applications. Voice Portal is an interactive, self-service application that uses voice recognition technology via the telephone to access electronic applications or databases. It is designed to augment call centers by offloading routine inquiries, to efficiently deliver outbound notifications, and

to extend the reach of Web applications through speech recognition to mobile users and/or those that do not have Internet access via a PC.

With Voice Portal, calls into any governmental unit can be handled by automated agents, which interpret the caller's spoken words via Automatic Speech Recognition (ASR) and respond by employing pre-recorded voice and/or text-to-speech (TTS) technology. Voice Portal acts upon the caller's request and helps the caller complete transactions or responds to them with information 24x7 365 days a year.

MCI has the capabilities to customize Voice Portal applications to meet a wide range of customer's business needs.

a. Voice Portal Features

- Natural Language Speech Recognition - Market leading speech recognition capability
- Dual Tone Multi Frequency (DTMF) - Accepts touch-tone input as an alternative to speech
- Text to Speech - Market leading synthesized speech engine, converts text, such as web page content to intelligible spoken language that is delivered via phone.
- Pre-Recorded Speech - Professionally recorded prompts or content, or customer recorded content
- Call Transfer - Transfers inbound customer calls to another termination
- Outbound Call Initiator - Places outbound calls, such as reminders or notifications, to predetermined numbers. May be triggered by an authorized administrator or by an event. (such as a closed highway)
- Multi-Modal Delivery - Sends outbound messages to a variety of devices, including phones, pagers, fax machines, or e-mail clients
- Voice Authentication - Biometric security measure validates users by comparing speech patterns to pre-stored patterns to pre-stored voice prints
- Web Application Integration - “Speech-enables” existing Web content and applications using VoiceXML and HTTP/HTTPs Connectors- expands end-user access to Web apps for mobile users and those without PC’s.
- Web Administration - Secure Web page enables authorized users to update lists, initiate notifications, change call flows, etc. Administrative Web pages are customized for certain Voice Portal applications.
- Web Reporting - Near real-time reports, accessible from a secure Web page, show application activity (e.g. status of notification delivery attempts)
- Voice User Interface (VUI) - Telephone interface (prompts and responses) that enable end-users to access the application. Also, telephone interface that enables authorized administrators to log in and manage the application, record voice messages, trigger outbound notifications, etc.
- **.**WAV File Capture - Records spoken responses (e.g. for later transcription by the customer), files delivered to customer via e-mail or secure Web page.
- Name Capture - Module supports recognition of spoken first and last names.

- Address Capture - Module supports recognition of spoken street names. After ZIP code is selected, spoken street name is compared to ZIP-code specific street name list (supplied by U.S. Postal Service.)
- Caller History by ANI - Tracks prior call history from a given phone number
- Reverse ANI Lookup - Attempts to identify caller's address by bumping originating ANI against MCI Web-Based Directory Service database. Often used as first attempt to collect address, reducing need to invoke Address Capture Module.

b. Specifications for Use

Once a customer has determined they have an application that Voice Portal will be appropriate for, there are several steps that need to be followed. The applications are mostly custom-designed and built for each user (state, county, local government unit); the following processes need to be completed prior to service turn-up:

1) Part 1.

   a) MCI account team will engage MCI Customer Interaction Solutions (CIS) and provide a customer business overview, which provides a general description of the customer's application and business focus/objective.

   b) MCI account team and customer will jointly develop a description and sample call flow that describes how the customer envisions the application working.

2) Part 2:

   A formal Statement of Work (SOW) is developed based on customer input in Part 1. SOW will include:

   - Services to be performed and hours required
   - Timeframes for deliverables
   - High-level design plans
   - Level of effort (LOE) which outlines expected development hours which determines Service Development Fee

3) Part 3:

   Once SOW agreement is signed, a Service Design Document is developed. This SDD will include the voice portal application and call flow design. Weekly implementation calls will be held during the design development phase. Once application is built it is loaded on the MCI test platform. From test platform application is moved to production environment. Customer and Quality Assurance (QA) test Voice Portal application. Customer will be allowed 5 days

to perform user acceptance testing (UAT). Upon acceptance of the application, the billing for the service will commence.

Typical applications will take 25-45 days to implement from time a Statement of Work is agreed upon.

c. Voice Portal Pricing for Custom Speech Applications

Note: Toll Free, Hosting, Access, and Internet connectivity charges are not included as part of Voice portal pricing. Check specific product on COVANET contract for pricing on these services. Additionally, installation waiver pool doesn't apply to these development and installation of these services.

Custom Speech Applications are Voice Portal applications tailored to meet customers' specific business requirements and to integrate with customers' Web applications or IT environments. Due to the nature of Custom Speech Applications, pricing is determined based upon the statement of work on an individual-case basis. Following are the typical pricing elements and standard rates (these rates are standard rates and may be adjusted by MCI as warranted by the business case):

1) **Billing Elements:**

a) **One-Time & Per Transaction Fees**

b) **Service Development Fee**

This is the up-front charge for MCI recovery of a portion of the internal costs incurred in application development and implementation. The charge is fixed and is not waived as part of any installation charge waiver pools.

- Complexity of application
- Availability of re-usable components
- Projected usage volume
- Duration of contract

c) **Transaction Fee**

A transaction fee is incurred each time the caller accesses the Voice Portal application.

d) **Professional Services Fees**

Incurred for customer-requested changes to an application after the initial implementation.

e) **Recording Fees**

Incurred if professional studio recording of voice prompts is required

A.2.13 Web Center

MCI Web Center

Web Center is a network-based contact center offering. Fully managed within MCI application hosting facilities, Web Center provides the Commonwealth and other governmental units with a comprehensive library of customer support capabilities. Web Center enables governmental entities to migrate from or augment services for a traditional call center to a next-generation contact center.

With Web Center, MCI can offer customer service through a wide variety of multimedia contact options and customer-prioritization and intelligent contact-routing tools.

- PBXs
- ACDs for skills-based call routing
- E-mail and chat session distributors
- Chat, Web-collaboration, Web-callback, IVR-routing, voicemail, fax, and unified-messaging servers
- CTI gateways
- Call-recording and call-logging systems
- Supervisor call-monitoring and coaching equipment

Web Center is a complete in-network solution, an entities customer service agents only require a PC, Internet connection, and telephone to work, from any location, even remotely.

a. Features

There are several components and features of Web Center.

Web Center is highly customizable by the customer administrator. Additionally, it allows entities to subscribe to specific services, provision resources, monitor performance, and obtain up-to-date management reporting.

Each feature and its individual components are described in the following section. Users may select only those features that are of benefit to them.

1) **E-mail Management-** Queue and route e-mail to the appropriately skilled agent/agent group, whether on site or remote, with scripted templates that streamline/semi-automate response handling.

   Features

   - Intelligent distribution of e-mail by project
   - Support for standard e-mail clients
   - Delivery of e-mail to agent's POP server account (optional "masking" of e-mail address)
   - Auto-acknowledgement (TXT or HTML) by individual project
   - Auto-suggest sorted by relevance from keyword search
   - Automatic re-queuing of unanswered e-mails with supervisor notification
   - Archiving of customer e-mails and agent responses in customer contact history

2) **Web Chat:** Queue, route, and distribute customer-initiated chat sessions to the agent or specifically skilled agent group.

   Features

   - Single interface for managing simultaneous chat sessions
   - Transfer of chat session to another agent with historical dialogue
   - URL Library with page preview
   - Automatic URL pushes before, during, and after chat session
   - Web collaboration
   - Automatic creation of Web chat pages in Administration Manager.
   - Java chat requires no special software or downloads.

3) **Web Callback:** Enable customers to request an instant agent callback via the agency/user website.

   Features

   - Customer-requested callback initiated via Web, delivered by phone.
   - Customizable URLs displayed to customer depending on status of callback request
   - Automatic creation of Web callback pages in Administration Manager.

4) **Unified Messaging:** Standard e-mail client may be used as central location for e-mail, voice mail and fax.

Features

- Standard e-mail client may be used as central location for e-mail, voice mail, and fax.
- E-mail delivered to agent's POP server account.
- Fax delivered as e-mail attachment.
- Fax template response library
- Voice mail delivered as '.wav' file attachment.

A.2.13.1 Telephony Management

a. Interactive Voice Response (IVR)

Features

- Automatic upload of recorded prompts and greetings
- Customizable prompts for hold music, ring tones, etc. set by workgroup
- Collect customer information in IVR for screen pop and/or routing priority
- Estimated wait time
- Request for automatic callback
- Request to leave voice mail
- Dial by extension or company directory listing
- Touch-tone menu routing tree configuration (deliver call to agent, workgroup, fax, or additional menu)
- Network queuing
- Routing of calls to external numbers

b. Automatic Contact Distributor (ACD)/Voice

Features

- Support for Toll-Free traffic
- Blended queuing and delivery of voice contacts and Web events
- Delivery of calls to DID or traditional POTS line
- Automatic re-queuing of unanswered calls and notation of missed calls
- Agent-initiated recording
- Definable agent status types: Available, Last Call, Busy, After Call Work, On Break

c. Private Branch Exchange

Features

- Traditional PBX features such as Hold, Transfer, Conference, Mute
- Virtual 4-digit extensions
- Voice Mail
- Find Me/Follow-Me Routing
- Delivery of calls to DID lines
- Directory of employee names and extensions

A.2.13.2 Customer Relationship Management Features

a. Customer Relationship Management

Features

- Customer-prioritized routing
- Skills-based, agent-level routing
- 18 (company-configurable) fields of data per customer
- Screen pop based on database lookup (ANI or e-mail address)
- Find and selection criteria for assignment of contacts
- Contact history with archived transcripts for e-mail, chat sessions ('.wav' files for voice recordings)
- Scripting and QA delivered to agent by project or CED
- Agent-created "notes" for contact history
- Outcome dispositions

b. CRM Integration

Features

- "Custom" tabs to launch a browser-based application within the agent module.
- Launch an external application based on parameters passed by the agent module.
- Enable a third-party application to invoke commands within the agent module.
- Create a unique Interaction Manager to pass information between the user desktop and servers.

A.2.13.3 Supervisor/Quality Monitoring Features

a. Supervisor/Quality Monitoring

Features

- Quality Monitoring database populated with random and/or supervisor-initiated recordings.
- Real-time statistics spanning global- to agent-level views
- Color-coded threshold alarms for interactions
- Silently listen to agent's call or listen with whisper coaching
- Replace an agent on a real time basis.
- Text coaching via chat, broadcast message to single agent or all agents
- Remotely view or take control of agent's desktop.

b. Reporting

Features

- **Customized Reporting**
    - Allows the user to create a report real time by selecting from a series of checkboxes, then clicking on the "Create Report" button.
    - Ability to save template reports for future use.
    - Creation of reports spanning global to agent-level view
    - Summary and General Statistics reports including key measurements (SLA attainment, AHT, etc.)
    - Outcome reports organized by interaction type

- **Data Extraction Control**
    - Allows users to define specific data fields that extract required information (i.e., by group, lists of groups, date range, interaction type, etc.).

- **Historical Reporting**
    - Provides a data repository through which the user can request historical data for all contact forms to compare with current data for trending.

c. Remote Database

Features

- Store quality monitoring, reporting details, and interaction information in remote server.
- Use remote database to populate "Contact" fields and "History" information.

d. Browser Based

Features

- Systems requirements (Windows and Internet Explorer [IE] 5.5)
- Unique Web-based login to Secure Socket Layer (SSL) session
- Ability to instantly provision and change business rules from any Internet (IE 5.5) connected PC
- GUI-based control over business rules and functions
- Java-based routing allows for seamless integration with Web site

e. Virtual Agents

Features

- Support for remote agents and virtual workgroups
- Dynamic configuration of agent/supervisor settings based on location

f. Administration

Features

- Parameter-based configuration of business rules and routing strategies
- Control of agent profiles (skills, access rights, workgroups, assignment to supervisor, etc.)
- Overflow options (another workgroup, etc.) based on volume conditions, customer entered digits
- Automatic creation of Web chat and Web callback HTML pages
- Mail Manager (visibility to mail pending on server, mail sent with errors, mail already sent)
- Schedules (time-of-day/day-of-week routing for DNIS)
- Add or remove agents instantly, agent departure reason tracking

g. Architecture

Features

- Full geographic redundancy
- Alarming based on defined system failures
- Hot back-up methodology for interactions (master and standby for each transaction)

h. Support

Features

- Managed end-to-end by MCI.
- 24x7 support available from the Web Center customer service center.
- Implementation resources provided for each deployment.

A.2.13.4 MCI Customer Center

Web Center customers can now use the MCI Customer Center to obtain information and manage their Web Center service. The MCI Customer Center gives customers access to network management, service ordering, invoice review and pay, network event monitoring, updated product information, service requests, technical advice and escalation paths, reporting, and customer service relations.

Specifications for Use

a. Hardware and Software for Web Center

Web Center requires the following to access the service platform:

- Telephone
- DID – Direct Inward Dial
- POTS – Plain Old Telephone Service (like a home phone)
- Computer
- The application will run on any browser-equipped computer
- Pentium/128K
- Windows 98, 2000, and Windows NT
- Internet Explorer 5.5 (Virtual Machine)
- Standard e-mail client (Outlook, etc.)
- Multimedia speakers
- Sound card

- Internet connection
- Provided by any service provider
- Internet connection – 56 Kbps dial-up ISP service capable of supporting 19 Kbps sustained with burst latency not to exceed 200 ms roundtrip.
- MCI Toll Free Service
- Customers cannot use another carrier's toll-free number to access Web Center.
- Web site or server
- If the customer plans to use chat, e-mail, or Web callback, they will need a customer-facing Web site. Whether a customer has a Web site or not, they will need a Web server to store/host FAQ's, scripts, URLs, etc.

b. Related Items

The following are optional items, which could enhance the functionality of Web Center:

- Premises database
- Proxy server software (optional but at no additional charge)
- Webmaster
- FrontPage (Web page publishing tools)

A.2.14 MCI Voice over IP Solutions (MCI Advantage)

MCI Advantage is a comprehensive, communications solution that addresses local, long distance and international voice and data solutions through a single network. It allows customers to integrate voice and data applications by converging these services over MCI-provided IP network.

MCI Advantage provides a migration path to VoIP by offering the option to use the customer's existing legacy voice solutions, deploy IP phones at the desktop, or use the MSN® Messenger client on PCs and laptops. When using IP phones, customers may eliminate their PBX or CENTREX connection and obtain routing and features from the MCI® network, providing a low-cost alternative to purchasing and managing on-site voice equipment.

a. Features:

- Support for traditional features such as dial plans and range privileges
- Advanced calling features, including find-me routing and selective call acceptance
- IP-to-IP and IP-to-PSTN calling
- Local origination calling from certain markets and access back into the local networks for call terminations, including operator services, directory assistance, and 911

- Long distance calling
- Ability to maintain current PBX and phones and/or migrate to standards-based IP phones
- Administrative control through a Web interface

b. Pricing: To be determined.

Attachment B
Rates and Charges

B.0 General

Attachment B identifies the rates and charges from MCI to the Commonwealth for the delivery of services under the COVANET contract.

B.0.1 Conversion and Installation Credits

The following Conversion and Installation credits will apply under this contract:

- Free installation of data and voice access circuits that will remain in service for at least one year. VITA or the DSP customer will pay the installation charge at the disconnect time if a circuit is removed in less than a year.
- In order to add new customers for the long distance services under this contract, VITA, authorized DSP participants or VITA customers may incur charges (usually called PIC charges) from local carriers to automatically route long distance traffic to MCI. MCI agrees that credits for properly documented PIC charges clamed by VITA or authorized DSP participants against long distance charges will be approved by MCI.
- At any time MCI offers promotions waiving non-recurring charges, these promotions will be available to COV.

B.0.2 Dedicated Voice Access Plan

MCI provides the following voice services dedicated access plan:

- MCI will provide Voice Access and Toll Free Access T1's and PRI's to the Commonwealth at no charge. MCI will proactively monitor usage of the T1's and PRI's. If a circuit's utilization is low for an extended period, MCI will bring the issue to the attention of VITA. Through mutual agreement of both MCI and VITA, the under-utilized circuit will either be disconnected or if the VITA customer wishes to continue using the circuit, they will be required to pay monthly recurring charges for the circuit. (See B.1.1.3.c for T-1 price)

B.0.3 Other Charges and Discounts

- MCI will charge for expedites when authorized on the Telecommunications Service Order. The contract price for an expedite is $500 per circuit.
- Volume discounts apply as set forth in MCI's original proposal and exclude taxes and surcharges.

B.0.4 Federal Universal Service Fund Fees

As a result of FCC action, all inter-exchange carriers are required to contribute to a common national fund that supports telecommunications subsidies for consumers who reside in high-cost service areas or who earn low incomes, elementary and secondary schools, public libraries, and rural health care providers. The FCC determines each telecommunications company's required contribution to the common fund, based on its annual revenues from regulated telecommunications services.

Federal Universal Service Fund charges to VITA or to DSP customers will not exceed the Universal Service contribution factor established by the Federal Communications Commission. The factor will only be applied to interstate and international telecommunications charges to calculate the amount of the FUSF charges billed to VITA and to DSP customers.

See detailed list of FUSF items in Appendix D.7

MCI calculates DIT's FUSF charges as a percentage of net charges (after discounts but before taxes) associated with regulated eligible services. These charges do not count toward satisfying contract minimums and do not receive discounts.

B.0.5 Carrier Access Charge

The Local Exchange Carriers (LECs) have received the FCC's permission to change the way they charge long distance companies for access to their local networks. Consequently the LECs now assess the FCC approved switched Access charges on a per-line basis.

See detailed description on computing CAC in Appendix D.6.

B.1 COVANET Data Services

B.1.1 Private Line Services

B.1.1.1 Digital Data Services (Point-to-Point)

Description	Monthly Recurring Base Cost	Non-Recurring Cost *
Intra-VA DDS 56kbps	$315.00	$200
Intra-VA DDS 56kbps (Interoffice channel only)	$135.00	$200

Description	Monthly Recurring Base Cost	Monthly Recurring Per IOC Mile	Non-Recurring Cost *
Interstate DDS 56kbps	$383.00	$0.43	$200

B.1.1.2 DS-0 Data Services (Point-to-Point)

Description	Monthly Recurring Base Cost	Non-Recurring Cost *
Intra-VA DS-0 Services	$300.00	$200
IntraLATA DS-0 (Interoffice channel only)	$110.00	$200

Description	Monthly Recurring Base Cost	Monthly Recurring Per IOC Mile	Non-Recurring Cost *
Interstate DS-0 Services	$405	$0.43	$500

B.1.1.3 Analog Data Services

a. Point-to-Point Analog Data Services

Description	Monthly Recurring Base Cost	Non-Recurring Cost *
Intra-VA Analog point-to-point data services	$245.00	$200
Intra-VA Analog VGPL (Interoffice channel only)	$125.00	$200

Description	Monthly Recurring Base Cost	Monthly Recurring Per IOC Mile	Non-Recurring Cost *
Interstate Analog Point-to-point data services	$325.00	$0.43	$200

b. Multi-Point Analog Data Services

Description	Monthly Recurring Base Cost	Non-Recurring Cost *
Intra-VA Analog multi-point data services (per leg)	$115.00	$200

Description	Monthly Recurring Base Cost	Monthly Recurring Per IOC Mile	Non-Recurring Cost *
Interstate multi-point data services (per leg)	$160.00	$0.43	$200

c. Private Line Voice – Analog Voice and/or Data

Description	Monthly Recurring	Non-Recurring Cost *
Automatic Ring Down	$245.00	$200
Foreign Exchange	$245.00	$200
Off Premise Extension	$245.00	$200
Tie Line	$245.00	$200
Multipoint Analog (per Drop)	$115.00	$200
T-1 Access	$250.00	$200
Voice Trunk Groups	$50.00	$0

Note: MCI provides the line only, not the telephone number or dial tone

d. Private Line – Analog or Data Access Only

Description	Monthly Recurring	Non-Recurring Cost *
Analog VGPL Access	$100.00	$200
56k/64k Access	$108.00	$200
T-1 Access	$250.00	$200

B.1.1.4 Terrestrial Digital Services (TDS 1.5)

Description	Monthly Recurring Base Cost	Non-Recurring Cost *
Intra-VA TDS 1.5	$960.00	$200

Description	Monthly Recurring Base Cost	Monthly Recurring Per IOC Mile	Non-Recurring Cost *
Interstate TDS 1.5	$1,500.00	$2.50	$200

B.1.1.5 Terrestrial Digital Services (TDS 45)

Description	Monthly Recurring Base Cost	Non-Recurring Cost *
Intra-VA TDS 45	$20,000.00	$1,000

Description	Monthly Recurring Base Cost	Monthly Recurring Per IOC Mile	Non-Recurring Cost *
Interstate TDS 45	$20,000.00	None	$1,000

* See B.0.1 Free Installation of Data and Voice Circuits if installed for one year.

B.1.1.6 SONET Services

a. Private Line Ethernet Services

Description	Fixed Recurring (& First Mile)	Per Mile Each Additional Mile	Non-Recurring Cost – All Speeds
55 Mbs (DS3)	$4,746.40	$153.60	$1,400
155 Mbs(OC-3)	$7,108.00	$230.40	$1,400
622 Mbs (OC-12)	$13,595.20	$460.00	$1,400

b. SONET Private Line

City Pairs	DS3	SONET OC1	SONET OC3	Non-Recurring Cost – All Speeds
Charlottesville to Richmond	$31,243.20	$33,430.40	$93,729.60	$1,000
Richmond to Washington	$35,769.60	$38,272.80	$107,308.80	$1,000
Charlottesville to Washington	$34,886.40	$37,328.80	$104,659.20	$1,000

B.1.2 Switched Data Services

B.1.2.1 Switched 56/64 and T-1 Data Service (T-1, ISDN PRI & ISDN BRI Access)

Description	Monthly Recurring Base Cost	Non-Recurring Cost *
Switched 56/64kb	$108.00	$200
Switched T-1	$250.00	$200

Switched Usage	Mileage Band	Cost Per Minute
Switched 56/64kb	All Bands	$0.06
All Bands T-1	All Bands	$1.15

B.1.3 Integrated Services Digital Network (ISDN)

Description	Unit	Monthly Recurring Base Cost	Non-Recurring Cost *
Multi-Rate Bearer Service	Per loop	$250.00	$200
ISDN PRI	Per loop	$250.00	$200

B.1.4 Frame Relay Services

B.1.4.1 COVANET Frame Relay

a. Frame Relay Access Charges

Description	Monthly Recurring Cost	Non-Recurring Cost
56 Kbps	$108.00	$200.00
T-1	$250.00	$200.00
2 x T-1	$500.00	$400.00
3 x T-1	$750.00	$600.00
4 x T-1	$1,000.00	$800.00
DS-3	$2,400.00	$1,000.00

b. Frame Relay Port Speeds

Description	Monthly Recurring Base Cost	Non-Recurring Cost
56Kbps	$11.00	$0.00
64Kbps	$21.00	$0.00
128Kbps	$37.50	$0.00
192 kbps	$42.00	$0.00
256Kbps	$46.75	$0.00
384Kbps	$51.00	$0.00
512Kbps	$59.50	$0.00
640Kbps	$68.00	$0.00
768Kbps	$85.00	$0.00
1024Kbps	$100.00	$0.00
1536Kbps	$160.00	$0.00
3072Kbps	$680.00	$0.00
4608Kbps	$850.00	$0.00
6144Kbps	$1,062.00	$0.00
22.5Mbps	$1,275.00	$0.00
45Mbps	$1,530.00	$0.00

c. Frame Relay PVCs

COVANET's priority frame relay service extends ATM-like quality of service (QoS) to frame relay. Priority frame relay allows users to take advantage of multiple elements of quality in a frame relay service, including throughput/speed, delay and frame loss.

The following two service classes comprise COVANET's priority frame relay service:

- **Priority One—Real Time Variable Frame Rate (rtVFR)**. This service provides committed bandwidth, with low delay and frame loss. COVANET is able to offer SLGs with specified delivery characteristics for delay-sensitive traffic, such as video and voice.
- **Priority Two—Non-real time Variable Frame Rate(nrtVFR)**. This service provides committed bandwidth, with higher delay and low frame loss. COVANET is able to offer SLGs with specified delivery characteristics for less delay – sensitive traffic such as SNA, LAN-to-LAN and business class Internet/Intranet access services.

1. Priority One

CIR	INTER LATA
	Monthly Recurring Base Cost
28K	$25.00
56K	$42.00
64K	$55.00
128K	$75.00
192K	$85.00
256K	$95.00
384K	$105.00
512K	$160.00
640K	$175.00
768K	$185.00
1024K	$215.00
1536K	$480.00
3072K	$965.00
4608K	$1,100.00
6144K	$1,300.00
22.5M	$3,000.00
45M	$4,200.00

2. Priority Two COVANET Frame Relay

CIR	INTRALATA	INTER LATA	COVANET Private IP Services	INTERNET
	Monthly Recurring Cost	Monthly Recurring Cost	Monthly Recurring Cost	Monthly Recurring Cost
28K	$0.00	$18.00	$18.00	$18.00
56K	$0.00	$31.50	$31.50	$31.50
64K	$0.00	$36.00	$36.00	$36.00
128K	$0.00	$49.50	$49.50	$49.50
192K	$0.00	$52.20	$52.20	$52.20
256K	$0.00	$54.00	$54.00	$54.00
384K	$0.00	$63.00	$63.00	$63.00
512K	$0.00	$72.00	$72.00	$72.00
640K	$0.00	$81.00	$81.00	$81.00
768K	$0.00	$90.00	$90.00	$90.00
1024K	$0.00	$112.50	$112.50	$112.50
1536K	$0.00	$270.00	$270.00	$270.00
3072K	$0.00	$540.00	$540.00	$540.00
4608K	$0.00	$607.00	$607.00	$607.00
6144K	$0.00	$810.00	$810.00	$810.00
22.5Mbps	$0.00	$1,800.00	$1,800.00	$1,800.00
45Mbps	$0.00	$3,150.00	$3,150.00	$3,150.00

Note: MCI maintains two Internet gateway routers. Customers interested in a added level of diversity can order a second PVC from the same customer location (Router Interface) to the alternate gateway router.
There will be no additional cost for the second PVC, for PVC's originating from the same access facility only.

B.1.5 ATM Services

B.1.5.1 COVANET ATM Service

COVANET's ATM service includes CBR, VBR-rt, VBR-nrt, UBR and IP PVCs. Please see the service description in Attachment A for guidelines and acceptable use policy. ***MCI reserves the right to optimize DS3 facilities (to lower speed alternatives) for facilities that have an average busy hour utilization, Mon-Fri 8am-5pm, less than 5% measured over a 1 month period.***

a. **ATM Access Charges**

Description	Monthly Recurring Base Cost	Non-Recurring Cost *
T-1 (1536 kbps)	$250.00	$200.00
2 x T-1 (3072)	$500.00	$400.00
3 x T-1 (4608)	$750.00	$600.00
4 x T-1 (6144)	$1,000.00	$800.00
DS-3 (45Mb)	$2,400.00	$1,000.00
OC-3 (155 Mb)	$6,400.00	$1,000.00

b. ATM Port Charges

Description	Monthly Recurring Base Cost	Non-Recurring Cost
T-1 (1536 kbps)	$270.00	$0
2 x T-1 (3072)	$450.00	$0
3 x T-1 (4608)	$630.00	$0
4 x T-1 (6144)	$810.00	$0
DS-3 (45Mb)	$1,050.00	$0
OC-3 (155 Mb)	$3,400.00	$0

c. ATM PVC Pricing (UBR, VBR-nrt, VBR-rt, UBR and IP PVCs)

(Price is for a two way PVC)

PVC Speed	UBR	VBR/nrt	VBR/rt	IP PVCs
256 kbps	$0.00	$0.00	$0.00	$0.00
512 kbps	$0.00	$0.00	$0.00	$0.00

PVC Speed	UBR	VBR/nrt	VBR/rt	IP PVCs
768 kbps	$0.00	$0.00	$0.00	$0.00
1024 kbps	$0.00	$0.00	$0.00	$0.00
1536 kbps	$0.00	$0.00	$0.00	$0.00
3072 kbps	$0.00	$0.00	$0.00	$0.00
4608 kbps	$0.00	$0.00	$0.00	$0.00
6144 kbps	$0.00	$0.00	$0.00	$0.00
22.5 Mbps	$0.00	$0.00	$0.00	$0.00
45 Mbps	$0.00	$0.00	$0.00	$0.00

Note: IP PVC includes access to the COVANET Private IP network backbone. (VBNS+)

d. ATM CBR /PVC Pricing

(Price is for a two way PVC)

CBR/PVC	Monthly
256 kbps	$90.00
512 kbps	$180.00
768 kbps	$270.00
1024 kbps	$360.00
1536 kbps	$540.00
3072 kbps	$1,080.00
4608 kbps	$1,620.00
6144 kbps	$2,160.00
22.5 Mbps	$7,560.00
45 Mbps	$22,500.00

Note: ATM PVC's: CBR-PCR equals SCR

e. ATM Internet Access PVC Pricing

(Price is for a two way PVC)

Internet PVC	Monthly
256 kbps	$30.00
512 kbps	$40.00
768 kbps	$50.00
1024 kbps	$60.00
1536 kbps	$70.00
3072 kbps	$135.00

Internet PVC	Monthly
4608 kbps	$200.00
6144 kbps	$250.00
10 Mbps	$300.00
22.5 Mbps	$400.00
45 Mbps	$750.00
OC/3	$1,600.00

Note: MCI maintains two Internet gateway routers. Customers interested in a added level of diversity can order a second PVC from the same customer location (Router Interface) to the alternate gateway router.
There will be no additional cost for the second PVC, for PVC's originating from the same access facility only.

B.1.6 MCI Public ATM and Frame Relay Services

B.1.6.1 Public ATM Access Charges

Description	Monthly Recurring Base Cost	Non-Recurring Cost *
T-1 (1536 kbps)	$250.00	$200.00
2 x T-1 (3072)	$500.00	$400.00
3 x T-1 (4608)	$750.00	$600.00
4 x T-1 (6144)	$1,000.00	$800.00
DS-3 (45Mb)	$2,400.00	$1,000.00
OC-3 (155 Mb)	$6,400.00	$1,000.00

B.1.6.2 Public ATM Port Charges

Port charges are based upon the selected bandwidth needed to connect to the ATM network. MCI currently offers DS-1, NxDS-1, DS-3, OC-3 and OC-12 ATM UNI ports.

ATM UNI	Port Speed	Price per Month Per Port	Non-Recurring Installation Charge
DS-1 **	1.544 Mbps	$1,151.15	$200.00
2xDS-1	3 Mbps	$1,726.73	$600.00
3xDS-1	4.5 Mbps	$2,129.08	$600.00
4xDS-1	6 Mbps	$2,475.20	$600.00
DS-3	45 Mbps	$3,741.92	$600.00
OC-3	155 Mbps	$5,756.21	$1,000.00
OC-12	622 Mbps	ICB	ICB

ATM UNI	Port Speed	Price per Month Per Port	Non-Recurring Installation Charge
** DS-1 ATM UNI service is unchannelized. *** There is no difference in price whether the customer chooses a virtual path or a virtual channel.			

B.1.6.3 Public ATM PVC Charges

MCI offers the following UNI service classes:

1. ATM Constant Bit Rate (CBR)
2. ATM Variable Bit Rate – Real Time (VBR-RT)
3. ATM Variable Bit Rate – Non-Real Time (VBR-NRT)
4. ATM Unspecified Bit Rate (UBR)

1. ATM UNI Service Class: Constant Bit Rate

PCR=SCR	Fixed PVC Charge
Kbps	CBR (simplex)
16 Kbps	$12.93
32 Kbps	$25.86
48 Kbps	$38.79
64 Kbps	$51.72
128 Kbps	$103.43
256 Kbps	$206.87
384 Kbps	$310.30
512 Kbps	$413.74
768 Kbps	$620.62
1,024 Kbps	$827.49
1,536 Kbps	$1,241.23

2. ATM UNI Service Class: Variable Bit Rate - Real Time

PCR=SCR	Fixed PVC Charge
Kbps	VBR-rt (simplex)
16 Kbps	$9.90
32 Kbps	$19.82
48 Kbps	$29.73
64 Kbps	$39.62
128 Kbps	$79.26
256 Kbps	$158.51
384 Kbps	$237.78
512 Kbps	$317.04

PCR=SCR	Fixed PVC Charge
768 Kbps	$475.55
1,024 Kbps	$634.07
1,536 Kbps	$951.11

3. ATM UNI Service Classes: Variable Bit Rate - Non Real Time

PCR=SCR	Fixed PVC Charge
Kbps	VBR-nrt (simplex)
16 Kbps	$5.65
32 Kbps	$11.29
48 Kbps	$16.94
64 Kbps	$22.59
128 Kbps	$45.17
256 Kbps	$90.34
384 Kbps	$135.51
512 Kbps	$180.69
768 Kbps	$271.03
1,024 Kbps	$361.37
1,536 Kbps	$542.06

4. ATM UNI Service Classes: Unspecified Bit Rate

PCR=SCR	Fixed PVC Charge
Kbps	UBR (simplex)
16 Kbps	$1.66
32 Kbps	$3.32
48 Kbps	$4.98
64 Kbps	$6.64
128 Kbps	$13.28
256 Kbps	$26.57
384 Kbps	$39.85
512 Kbps	$53.14
768 Kbps	$79.70
1,024 Kbps	$106.27
1,536 Kbps	$159.41

B.1.6.4 MCI Interstate Public Frame Relay Services

B.1.6.5 Public Frame Relay Access Speeds

FR Access Speed	Price per Month Per Port	Non-Recurring Installation Charge
DS-0 (56 kbps)	$108.00	$200.00
T-1 (1536 kbps)	$250.00	$200.00

B.1.6.6 Public Frame Relay Port Speeds

FR Port Speed	Price per Month	One Time Installation Charge	One Time De-Install Charge	One Time Re-configure
56/64 kbps	$228.00	$50.00	$50.00	$50.00
128kbps	$410.40	$100.00	$100.00	$100.00
256kbps	$592.80	$100.00	$100.00	$100.00
384kbps	$747.20	$100.00	$100.00	$100.00
512kbps	$920.80	$100.00	$100.00	$100.00
768kbps	$1,133.60	$100.00	$100.00	$100.00
1.024Mbps	$1,433.60	$100.00	$100.00	$100.00
1.536Mbps	$1,833.60	$200.00	$200.00	$200.00

B.1.6.7 Public Frame Relay Fixed PVC Rates (Duplex)

FR Fixed PVC Speed KBPS	Monthly Recurring Cost (Duplex)
16kbps	$25.60
32kbps	$49.60
48kbps	$73.60
56/64 kbps	$97.60
112/128 kbps	$187.20
168/192 kbps	$280.00
224/256 kbps	$374.40

FR Fixed PVC Speed KBPS	Monthly Recurring Cost (Duplex)
280/320 kbps	$467.20
336/384 kbps	$560.00
392/448 kbps	$678.40
512kbps	$776.00
504/576 kbps	$873.60
560/640 kbps	$897.60
616/704 kbps	$987.20
672/768 kbps	$1,076.80
728/832 kbps	$1,166.40
784/896 kbps	$1,257.60
840/960 kbps	$1,347.20
1.024Mbps	$1,436.80
1.008/1.152 Mbps	$1,616.00
1.120/1.280Mbps	$1,795.20
1.232/1.408Mbps	$1,974.40
1.344/1.536Mbps	$2,153.60

B.1.7 Digital Subscriber Line (DSL) Service

B.1.7.1 DSL Monthly Recurring Rates

DSL Access Speed	One PVC to a COV Location	One PVC to Internet	Two PVCs to COV & Internet	One Time Installation
128 kbps	$88.00	$110.00	$138.00	$150.00
256 kbps	$106.00	$145.00	$160.00	$150.00
384 kbps	$122.00	$170.00	$185.00	$150.00
512 kbps	$154.00	$190.00	$226.00	$150.00
640 kbps	$180.00	$210.00	$261.00	$150.00
768 kbps	$200.00	$250.00	$290.00	$150.00

DSL Equipment Note: Prices for DSL include the DSL Access Hub to connect to the PC or local LAN.

B.1.8 Dedicated Internet Services

B.1.8.1 Access Options

a. Dial-up Access (UUDial Solo)

Description	Unit	Charges
Analog and ISDN (up to 56K)	Per Account/Per Month*	$15.00
ISDN BRI (up to 128K)	Per Account/Per Month*	$20.00
Charge for hours over the 250 limit	Per Hour	$2.00
Toll Free Access (if used)	Per Hour	$6.00
International Numbers (if used)	Per Hour	$2.00
*Account includes 250 hours of access		

Virginia Cities where Dial-up Internet is available

Alberta	Clarksville	Lawrenceville	Reston
Arcola	Courtland	Lorton	Richmond
Blacksburg	Culpeper	Louisa	Roanoke
Boydton	Disputanta	Lynchburg	Stafford
Boykins	Emporia	Manassas	Staunton
Capron	Franklin	Occoquan	Warrenton
Chancellor	Great Bridge	Petersburg	Williamsburg
Charlottesville	Harrisonburg	Princess Anne	Winchester
Chase City	Jarratt		

b. Dedicated Internet Access

Description	Monthly Access Cost	Internet Port & ISP Services	Non-Recurring Cost
T-1 (1,536)	$250.00	$880.00	$200
Double T-1	$500.00	$1,760.00	$400
Diverse T-1	$500.00	$1,760.00	$400
T-3 Tiered			
3 Mbps port	$2,750.00	$1,224.00	$1,600
6 Mbps port	$2,750.00	$2,448.00	$1,600

Description	Monthly Access Cost	Internet Port & ISP Services	Non-Recurring Cost
9 Mbps port	$2,750.00	$3,672.00	$1,600
12 Mbps port	$2,750.00	$4,896.00	$1,600
15 Mbps port	$2,750.00	$5,852.00	$1,600
18 Mbps port	$2,750.00	$7,022.00	$1,600
21 Mbps port	$2,750.00	$8,193.00	$1,600
24 Mbps port	$2,750.00	$9,363.00	$1,600
27 Mbps port	$2,750.00	$9,983.00	$1,600
30 Mbps port	$2,750.00	$11,100.00	$1,600
DS-3 (45Mb Service)	$2,750.00	$10,000.00	$1,600
Double DS-3	$5,500.00	$18,981.00	$1,600
Diverse DS-3	$5,500.00	$18,981.00	$1,600
OC-3 Tiered Service			
60.01 - 70 Mbps	ICB	$22,108.00	$2,000
70.01 - 80 Mbps	ICB	$26,520.00	$2,000
80.01 - 90 Mbps	ICB	$29,248.00	$2,000
90.01 - 100 Mbps	ICB	$31,926.00	$2,000
OC-3 (155Mb Service)	ICB	$43,758.00	$2,000
OC-12 (622Mb Service)	ICB	$132,148.00	$2,000
DSL Internet Service			
128 kbps	$149.00	Included	$0
384 kbps	$199.00	Included	$0
768 kbps	$499.00	Included	$0
1.0 Mb	$599.00	Included	$0
Note: DSL Prices do not include equipment charge			

c. *VSAT Internet Access*

Downstream Speed	Upstream Speed	Monthly Recurring Cost	One Time Installation
Up to 600kbps	128 kbps	$216.00	$750.00
Up to 800kbps	128 kbps	$306.00	$750.00
Up to 1.0 Mbps	128 kbps	$630.00	$750.00

Notes: VSAT Internet includes unlimited usage, up to 16 static IP addresses, up to five news feeds and up to 20 POP e-mail boxes.

d. Internet Domain Name Registration Services

Service	Fee
Internet Domain Name Registration	$50 (One Time)
Internet Domain Name Maintenance	$50 Per Year
Internet Domain Name Modification	$10 (One Time)

B.1.9 Electronic Data Interchange (EDI) Service

B.1.9.1 EDI Service Category

EDI Service Description	Monthly Recurring Base Cost	One Tine Installation
Mailbox Service (15 Mail boxes)	No Charge	$0.00
Dial-up line Services (@ LD rates)	See Section B.2.1.1	$0.00
Distribution Charge	No Charge	$0.00
Frame Relay Access (56kb Port)	$108.00	$0.00
Frame Relay Access (T-1 Port)	$250.00	$0.00
Peak& Off Peak EDI Rates		
Sending per kilo-character (kc)	$0.15	$0.00
Received per kilo-character (kc)	$0.10	$0.00
Faxed per kilo-character (kc)	$0.20	$0.00
Trading Partner Setup Fee	$0.00	$0.00
Initial EDI Setup Fee	$0.00	$0.00

B.1.10 Managed Virtual Private Network (VPN) Services

B.1.10.1 VPN PC User Help Desk

Description	Per User Monthly	Install
Dialup VPN User Client Support	$4.00	$0.00
(24 x 7 Help Desk)		

B.1.10.2 Nortel VPN Server - Managed Service ON-NET & OFF-NET

Nortel Service Description	5 days/9 hours	7 days/ 24hours	Installation
Both ON-NET and OFF-NET at COV Network Site	NBD Service Monthly Cost	4 hr Service Monthly Cost	
CONTIVITY 100	$19.00	$45.00	$200.00
CONTIVITY 600	$28.00	$47.00	$200.00
CONTIVITY 1000	$36.00	$56.00	$200.00
CONTIVITY 15XX/16XX/17XX	$101.00	$154.00	$250.00
CONTIVITY 2X00	$291.00	$437.00	$300.00
CONTIVITY 4x00	$873.00	$1,139.00	$500.00
PASSPORT 2430	$34.00	$71.00	$300.00
PASSPORT 5430	$187.00	$402.00	$300.00

Installation for equipment will be billed when equipment is installed and not subject to the standard installation policy. If a scheduled VPN installation visit is not cancelled by close of business two business days prior to the day of the appointment, the commonwealth will be billed $150.00 for that visit if the installer is turned away or if the customer's local contact is not available.

B.1.10.3 Nortel VPN Optional Firewall Management

Description	Monthly Recurring	Installation
Optional Firewall Management Firewall, VPN Additional	(Installation Charge)	$100.00
Optional Firewall Management		
Firewall, VPN Additional	$29.00	See Above
Internal LDAP Acct Mgnt 1-10 users	$12.00	See Above
Internal LDAP Acct Mgnt 11-50 users	$38.00	See Above
Internal LDAP Acct Mgnt 51-100 users	$68.00	See Above
Internal LDAP Acct Mgnt 101-300 users	$144.00	See Above
Internal LDAP Acct Mgnt 301-500 users	$255.00	See Above
Internal LDAP Acct Mgnt over 500 users	$340.00	See Above
Radius Server Management		
Radius Rmt. Acct Mgnt 1-10 users	$127.00	See Above
Radius Rmt. Acct Mgnt 11-50 users	$255.00	See Above

Description	Monthly Recurring	Installation
Radius Rmt. Acct Mgnt 51-100 users	$340.00	See Above
Radius Rmt.Acct Mgnt 101-300 users	$425.00	See Above
Radius Rmt. Acct Mgnt 301-500 users	$510.00	See Above
Radius Rmt. Acct Mgnt over 500 users	$595.00	See Above

Installation for equipment will be billed when equipment is installed and not subject to the standard installation policy. See note on $150.00 VPN installer turn away charge above.

B.1.10.4 CISCO VPN Server - managed service ON-NET & OFF-NET

CISCO Service Description	5 days/9 hours	7 days/ 24hours	One-Time
Both ON-NET and OFF-NET at COV Network Site	NBD Service Monthly Cost	4 hr Service Monthly Cost	Installation
CISCO 3002	$12.00	$19.00	$394.00
CISCO 3005	$51.00	$80.00	$394.00
CISCO 3015	$108.00	$174.00	$394.00
CISCO 3030 - Non-Redundant Config	$239.00	$384.00	$440.00
CISCO 3030 - Redundant Config	$349.00	$557.00	$440.00
CISCO 3060 - Non-Redundant Config	$436.00	$697.00	$527.00
CISCO 3060 - Redundant Config	$545.00	$872.00	$527.00
CISCO 3080	$818.00	$1,309.00	$635.00

Installation for equipment will be billed when equipment is installed and not subject to the standard installation policy. See note on $150.00 VPN installer turn away charge above.

B.1.11 Disaster Recovery "Hot Site" Services - Price Schedule

Connectivity from SunGuard Richmond to the switched data network for disaster recovery is included in the monthly Network Management Fee.

B.1.12 Intrusion Detection Services – Price Schedule

B.1.12.1 Shadow Services

Shadow Service Description	Standard Monthly Charge	Enhanced Monthly Charge	Premium Monthly Charge
Shadow Services			
ShadowPatrol – 1st Device	$3,185	$4,779	$6,372
ShadowPatrol – Each Additional Device	$1,275	$1,380	$1,487
ShadowWall – Per Device - Basic Service	$2,655	$4,248	$5,840
ShadowWall – High Availability Service	$3,983	$6,372	$8,762

Devices must be located at the same physical location as the managed IDS boxes.

Shadow Service Description	Installation Fees	Annual Maintenance
Hardware	$3,264	$73
Network Sensor	$7,236	$1,023
Per Site Implementation fee	$1,930	$0
IDS device implementation fee	$1,445	$0

Disaster Recovery Site	Installation Fees	Annual Maintenance
Hardware	$3,264	$73
ShadowPatrol – Each Additional Device	$1,275	
Secure Data Agent Equipment Fee	$5,500	$0
IDS device implementation fee	$1,445	$0
IDS Engineering – per visit	$2,100	N/A

B.1.12.2 Watch Services

Watch Services Description	Standard Monthly Charge	Enhanced Monthly Charge	Premium Monthly Charge
Watch Services			
OverWatch – 1st Device	$2,655	$4,248	$5,840
OverWatch – Each Additional Device	$106	$159	$212
SecureWatch – 1st Device	$2,655	$4,248	$5,840
SecureWatch – Each Additional Device	$318	$425	$531

Devices must be located at the same physical location as the managed IDS boxes.

Watch Services Description	Installation Fees	Annual Maintenance
Per Site Implementation fee	$1,930	$0
Additional Device Implementation	$291	$0

B.1.13 TruSecure Security Assurance Subscription

TruSecure Service Description	Standard Monthly Charge
Security Assurance subscription	$13,547.00

B.2 COVANET Voice Services

B.2.1 Outbound Long Distance Telephone Service

B.2.1.1 Outbound Domestic Voice

Description	Per minute Intrastate	Per minute Interstate	Non-Recurring Cost
Ded to Ded Day	$0.0180	$0.0180	$0
Ded to Ded Off	$0.0180	$0.0180	$0
Ded to Switched Day	$0.0340	$0.0280	$0
Ded to Switched Off	$0.0340	$0.0280	$0
Switched to Switched Day	$0.0495	$0.0495	$0
Switched to Switched Off	$0.0495	$0.0495	$0
Switched to Ded Day	$0.0280	$0.0280	$0
Switched to Ded Off	$0.0280	$0.0280	$0
Other States (Intrastate Only)	$0.17	N/A	$0

Note: Intrastate price is for both Intralata and Interlata Calling

B.2.1.2 Outbound International Voice Rates

See Appendix B-1 Table 1 for International Rates

B.2.1.3 Inbound International Rates

See Appendix B-3 Table 1-4 for International Rates

B.2.1.4 Country to Country Calling Rates

See Appendix B-2 Table 1-2 for International Rates

(Note: Combine Originating Country rate per minute with Terminating Country rate per minute to get Total Rate Per Minute.)

B.2.1.5 Operator Assisted Calling

Directory Assistance, Collect and Third Party Directory Assistance, Collect and Third Party

Description	Per Minute	Per Call	Non-Recurring Cost
Directory Assistance			
Virginia	N/A	$0.40	$0
Interstate	N/A	$0.40	$0
Canada	N/A	$0.40	$0
International	N/A	$2.00	$0
Operator Dialed - Domestic	N/A	$0.35	
Operator dialed - International	$1.00	$1.00	$0

Description	Per Minute	Per Call	Non-Recurring Cost
Collect Calling			
Operator Station Domestic & Canada	$0.10	$1.00	$0
Operator Station-International	International Rate Table B-1	$2.00	$0
Person to Person Domestic & Canada	$0.10	$2.00	$0
Person to Person International	International Rate Table B-1	$3.00	$0
Third Party Calling			
Operator Station Domestic & Canada	$0.10	$1.00	$0
Operator Station-International	International Rate Table B-1	$2.00	$0
Person to Person Domestic & Canada	$0.10	$2.00	$0
Person to Person International	International Rate Table B-1	$3.00	$0

B.2.2 Inbound Toll-Free ("800")

B.2.2.1 Distance Insensitive (Domestic) Toll Free Rates

Description	Intrastate Per Minute Rate	Interstate Per Minute Rate	Non-Recurring Cost
Switched to Dedicated Day	$0.0280	$0.0280	$0
Switched to Dedicated Off	$0.0280	$0.0280	$0
Switched to Switched Day	$0.0495	$0.0495	$0
Switched to Switched Off	$0.0495	$0.0495	$0

Note: Intrastate price is for both Intralata and Interlata Calling

B.2.2.2 Access Monthly Recurring (Per Trunk Group/Account Fee)

Description	Monthly Charge	Non-Recurring Cost
T-1 Access	$250	$800
ISDN/PRI Access	$250	$800
D Channel	$0	$0
Dedicated Trunk Group	$50	$0
Switched 800 Number	$5	$0
Interface equipment	See B.2.2.3 Below	

B.2.2.3 MCI CPE used in COVANET

MCI CPE Description	MCI Product Code	Monthly Rental
MCI Channel Bank	CBK04	$224.00
MCI CSU - 2	CSU02	$85.00
MCI CSU - 9	CSU09	$133.00
MCI Voice Card - 1	VCD01	$16.00
MCI CDU - 2	CDU02	$145.00

B.2.2.4 Payphone Surcharge

Description	Per Call	Non-Recurring Cost
Payphone Surcharge	$0.30	$0
Blocking Payphones	No charge	I- $150 per Corporate ID

B.2.2.5 International Toll Free Rates

See Appendix B-3 for the International Toll Free Table

B.2.2.6 Inbound Toll Free Standard Features

Description	Per Call	Non-Recurring Install Cost	Non-Recurring Change Cost
Direct Termination Overflow	$0.03 per call	$120 p/table	$40 p/table
Percentage Allocation Routing	No Charge	$40.00	$20.00
Point of Call Routing	No Charge	$40.00	$20.00
Tailored Call Coverage	No Charge	$120.00	$40.00
Holiday Routing	No Charge	$88.00	$40.00
Time of Day Routing/ Day of Week Routing	No Charge	$40.00	$20.00
Dialed Number Identification (DNIS) Per Trunk Group	No Charge	$400.00	$40.00
Supplemental Codes/ID codes per block of 100	No Charge	$40.00	$40.00
Supplemental Codes/ Accounting codes per block of 100	No Charge	$40 per Toll Free Number	$40 per Toll Free Number
MCI Toll Free Reporting	No Charge	$50/two users	
Disconnect Message Referral	No charge unless referring to a non-MCI Number. Then MRC = $150.00		

B.2.3 Enhanced Call Routing (ECR) Toll Free Services

B.2.3.1 ECR Platform and Transport Charges

Description	Per Minute Rate	Non-Recurring Cost
ECR Platform duration Per Minute Rate (1 min. min)	$0.105	$0.00
ECR Transport Charges (800 Calls to Sites – below)	COVANET Toll Free Rate	
Dedicated termination 800	$0.0280	
Switched termination 800	$0.0495	

B.2.3.2 (ECR) Application Development Services

Feature Description	Per Hour	Non-Recurring Cost
ECR Systems Development	$120.00	$0.00
Systems Development (One Time per new system)	$0.00	$200.00

B.2.3.3 Enhanced Call Routing (ECR) Feature Charges

Feature Description	Recurring Per Month	Non-Recurring Cost
Advanced database routing	$0.00	$0.00
Busy no answer routing	$0.00	$0.00
Database Routing	$0.00	$0.00
Menu routing	$0.00	$0.00
Automated speech recognition (New ECR Service)	$400.00	$0.00
Caller give back/take back	$0.00	$0.00
Custom Call Records (CCR)		
CCR Tape - Daily reports	$600.00	$0.00
CCR Tape - Weekly reports	$240.00	$0.00
CCR Tape - Monthly reports	$120.00	$0.00
ECR Host Connect Gateway	$80.00	$0.00
Host Connect Gateway Application	$80.00	$0.00
Message Announcement	$0.00	$0.00
Remote Audio Message update	$80.00	$0.00
Take back and Transfer) (Release link call transfer)	$0.00	$0.00
Text to speech	$400.00	$0.00

***Note**:* A minimum $0.01 per call is charged, if no features are selected

Description	One Time Charge	Non-Recurring Cost
Remote Audio Message update One Time per update	$100.00	$0.00
ECR Host Connect Gateway Expedited install/change	$350.00	$0.00

B.2.4 Translation Services

B.2.4.1 Service Access Pricing

Customers will be invoiced at the Dedicated Toll Free transport rates.

B.2.4.2 Translation Services Pricing

a. Installation and Recurring Charges

Description	Monthly Recurring Cost	Non-Recurring Cost
Translation Services	$50.00	$150.00

b. Translation Rates

Description	Unit	Charge
Spanish (Peak)	Per Minute	$1.88
Spanish (Off-Peak)	Per Minute	$2.12
Other Languages (Peak)	Per Minute	$2.28
Other Languages (Off-Peak)	Per Minute	$3.46

Notes:

The peak period is 5:00 a.m. to 5:00 p.m. Pacific time. Off-peak time is 5:00 p.m. to 5:00 a.m. weekends and holidays. If a call straddles the peak and off-peak time period, the call will be rated in the period in which it begins.

B.2.5 T-1 Digital Gateway (Integrated Voice/Data T-1 Service)

Description	Monthly Recurring Base Cost	Non-Recurring Cost
T-1 Access	$250.00	$800.00
Trunk Groups	$50.00	$0.00
ISDN/PRI Access	$250.00	$800.00
D-Channel	$0.00	$0.00
Calling Station ID.	$0.00	$0.00
Interface equipment	See B.2.2.3, CPE Pricing	

B.2.6 Operator/Public Payphone Services (Commission Plan)

Monthly Revenue	Monthly Commission %	Non-Recurring Cost
$0 - $100,000	39.00%	$0.00
$100,001 - 200,000	42.00%	$0.00
$200,001 and above	45.00%	$0.00

B.2.7 Calling Card Service

B.2.7.1 Domestic Calling

a. Calling Card Surcharges

Description	Per Call	Non-Recurring Cost
Domestic Surcharge (All Interstate & VA Intrastate)	$0.00	$0.00
Domestic Surcharge (Intrastate not Virginia)	$0.25	$0.00
Payphone Surcharge	$0.30	$0.00

b. Calling Card Per Minute Rates

Description	Intrastate/VA Per Minute	Interstate Per Minute	Non-Recurring Cost
Switched to Ded Day	$0.0340	$0.0280	$0.00
Switched to Ded Off	$0.0340	$0.0280	$0.00
Switched to Switched Day	$0.0495	$0.0495	$0.00
Switched to Switched Off	$0.0495	$0.0495	$0.00
Intrastate not Va - All	$0.1700	N/A	$0.00

B.2.7.2 International Calling Card Services

Description		Per Call	Non-Recurring Cost
International	See Appendix B-3 International Rates		
Canada Surcharge		$0.00	$0.00
International Surcharge		$0.00	$0.00
Canada Payphone Surcharge		$1.50	$0.00
Payphone Surcharge		$1.25	$0.00

B.2.8 ImagePort - Fax Broadcast

Description	Per Page	Non-Recurring Cost
Domestic Peak	$0.1700	$0
Domestic Off Peak	$0.1400	$0
International Peak & Off Peak	See Appendix B-1 Table 1 for International Rates	

B.2.9 Prepaid Calling Cards

Description Face Value on Card	Per Card Charge
eXpress! Card Style*	
$5.00	$3.08
$10.00	$6.15
$20.00	$12.30
$40.00	$24.60

***** Notes: Minimum Card order of $150.00

Rate is 79 cents per call and 5 cents per minute.

Prepaid service expires 12 months after activation of card.

B.2.10 Audio Conferencing Services

B.2.10.1 Audio Conferencing

Description	Charge (per minute)
Premier-Domestic	
Dial-Out	$0.295
Toll Free Meet Me	$0.295
Toll Meet Me (Bridging only)	$0.225
Standard-Domestic	
Dial-Out	$0.195
Toll Free Meet Me	$0.175
Toll Meet Me (Bridging only)	$0.165
Unattended-Domestic	
Toll Free Meet Me	$0.165
Toll Meet Me (Bridging only)	$0.155
Instant Meeting Dial Out	
Dial-Out	$0.165
Toll Free Meet Me	$0.165
Toll Meet Me (Bridging only)	$0.155

Notes:

- These pricing tables are for calls from the U.S. Mainland, Alaska, Hawaii, and the U.S. Virgin Islands to the U.S. Mainland, Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands
- Bridging only. Toll Meet Me participants will pay their own long

B.2.11 Video Conference Bridging Service

Service Features	MCU Port Fee	Transport Fee
Video Port Bridging		
Rate per Minute per Port	$0.80	
Per 112/128 Kbps Transport		
Rate per Minute per Port (*)		$0.30/min/port

* Domestic transport rates are priced per 112/128 Kbps channel per minute and are for Dial-Out only.

B.2.12 MCI Voice Portal Services

Service Features	Service Development Fee	Change Fee After initial Implementation	Transaction Fee
Address Change	$25,000	$225/hour	$0.35
Business Locator	$30,000	$225/hour	$0.35
Outbound Call Initiator	$30,000	$225/hour	$0.25
Recording Fees	ICB	ICB	

Prices shown are example prices. Any major project is on an Individual Case Basis with prices provided by MCI for the specific application.

B.2.13 MCI Web Center

MCI Web Center customers are assessed a monthly recurring charge per agent based on the number of agents using the Web Center platform monthly, as well as a monthly recurring charge "per Supervisor".

Agent Type	Monthly Fee
Supervisor Fee	$550 per individual supervisor
Full Time Agent	$485 per full-time individual (named) agent
Part Time Agent	ICB

B.3 Network Management Services

B.3.1 Data Management Services

Description	Monthly Recurring Cost	Non-Recurring Cost
Network Management NOC Support (Includes Hot Site Access PVCs)	$65,000	$0.00

Appendix B-1
International Rates

Appendix B-1, Table 1. Outbound International Rates

Outbound International Rates Called Country	Switched Origination	Dedicated Origination
Afghanistan	$2.110	$1.795
Albania	$1.029	$1.006
Algeria	$0.789	$0.767
American Samoa	$0.688	$0.678
Andorra	$0.391	$0.370
Angola	$1.226	$1.204
Anguilla	$0.783	$0.764
Antarctica (Casey, Davis, Mawson and Macquarie Island)	$1.067	$1.044
Antarctica (Scott Base)	$1.036	$1.013
Antigua (Barbuda)	$0.571	$0.557
Argentina	$0.215	$0.195
Armenia	$1.043	$1.025
Aruba	$0.549	$0.506
Ascension Island	$1.091	$1.068
Australia (including Tasmania)	$0.095	$0.075
Austria	$0.599	$0.577
Azerbaijan	$1.301	$1.278
Bahamas	$0.318	$0.275
Bahrain	$0.934	$0.915
Bangladesh	$1.347	$1.328
Barbados	$0.693	$0.669
Belarus	$0.776	$0.754
Belgium	$0.111	$0.091
Belize	$0.816	$0.796
Benin	$0.850	$0.843
Bermuda	$0.453	$0.446
Bhutan	$1.866	$1.843
Bolivia	$0.786	$0.764
Bosnia-Herzegovina	$0.817	$0.795
Botswana	$0.718	$0.695

Outbound International Rates Called Country	Switched Origination	Dedicated Origination
Brazil *	$0.130	$0.110
British Virgin Islands	$0.540	$0.519
Brunei	$1.038	$1.017
Bulgaria	$0.555	$0.533
Burkina Faso	$0.923	$0.901
Burundi	$2.372	$2.351
Cambodia	$2.101	$2.078
Cameroon	$1.048	$1.034
Canada	$0.070	$0.070
Cape Verde Islands	$1.105	$1.082
Cayman Islands	$0.477	$0.474
Central African Republic	$2.104	$2.081
Chad	$2.856	$2.835
Chile	$0.465	$0.443
China	$0.133	$0.113
Christmas Island	$0.319	$0.297
Cocos Islands	$0.319	$0.297
Colombia	$0.722	$0.676
Comorros	$1.961	$1.940
Congo	$1.012	$0.970
Cook Islands	$2.037	$2.019
Costa Rica	$0.220	$0.200
Croatia	$0.280	$0.260
Cuba	$0.997	$0.965
Cyprus	$0.770	$0.747
Czech Republic	$0.190	$0.170
Denmark	$0.111	$0.091
Diego Garcia	$1.307	$1.290
Djibouti	$1.278	$1.255
Dominica	$0.687	$0.665
Dominican Republic	$0.426	$0.405
East Timor	$3.700	$3.680
Easter Island	$0.465	$0.443
Ecuador	$0.849	$0.825
Egypt	$0.470	$0.450
El Salvador	$0.661	$0.648
Equatorial Guinea	$2.346	$2.323
Eritrea	$1.604	$1.583
Estonia	$0.811	$0.789
Ethiopia	$0.741	$0.721

Outbound International Rates Called Country	Switched Origination	Dedicated Origination
Faeroe Islands	$0.554	$0.533
Falkland Islands	$1.494	$1.480
Fiji Islands	$1.117	$1.095
Finland	$0.443	$0.425
France	$0.085	$0.065
French Antilles (including Martinique, St. Barthelemy and St. Martin)	$0.552	$0.529
French Guiana	$0.927	$0.906
French Polynesia	$1.928	$1.905
Gabon	$0.946	$0.923
Gambia	$0.843	$0.824
Georgia	$1.128	$1.107
Germany	$0.085	$0.065
Ghana	$0.280	$0.260
Gibraltar	$0.908	$0.885
Greece	$0.111	$0.091
Greenland	$0.599	$0.588
Grenada (including Carriacou)	$0.691	$0.670
Guadeloupe	$0.611	$0.587
Guantanamo Bay	$0.997	$0.965
Guatemala	$0.625	$0.601
Guinea	$1.797	$1.774
Guinea Bissau	$1.420	$1.397
Guam	$0.050	$0.050
Guyana	$1.089	$1.072
Haiti	$0.867	$0.849
Honduras	$0.363	$0.343
Hong Kong	$0.146	$0.126
Hungary	$0.517	$0.494
Iceland	$0.746	$0.722
India	$0.335	$0.315
Indonesia	$0.776	$0.752
Iran	$1.264	$1.261
Iraq	$1.717	$1.699
Ireland	$0.111	$0.091
Israel	$0.220	$0.200
Italy	$0.111	$0.091
Ivory Coast	$1.322	$1.304
Jamaica	$0.908	$0.884
Japan	$0.125	$0.105

Outbound International Rates Called Country	Switched Origination	Dedicated Origination
Jordan	$1.069	$1.062
Kazakhstan	$0.887	$0.864
Kenya	$0.517	$0.497
Kiribati	$2.286	$2.268
Korea, Democratic People's Republic of	$2.941	$2.941
Korea, Republic of	$0.160	$0.140
Kuwait	$1.111	$1.092
Kyrgyzstan	$1.441	$1.418
Laos	$2.173	$2.150
Latvia	$0.811	$0.789
Lebanon	$1.006	$0.988
Lesotho	$0.996	$0.975
Liberia	$0.722	$0.692
Libya	$1.437	$1.414
Liechtenstein	$0.289	$0.266
Lithuania	$1.053	$1.031
Luxembourg	$0.426	$0.405
Macao	$1.097	$1.076
Macedonia	$0.817	$0.795
Madagascar	$3.302	$3.281
Malawi	$0.782	$0.761
Malaysia	$0.510	$0.488
Maldives	$1.475	$1.452
Mali	$1.376	$1.355
Malta	$0.892	$0.871
Marshall Islands	$1.214	$1.196
Mauritania	$1.177	$1.154
Mauritius	$1.347	$1.324
Mayotte Island	$1.961	$1.940
Mexico (All Zones)	$0.280	$0.280
Micronesia	$1.124	$1.103
Moldova	$1.171	$1.148
Monaco	$0.271	$0.261
Mongolia	$2.001	$1.978
Montserrat	$0.796	$0.792
Morocco *	$0.496	$0.476
Mozambique	$1.433	$1.411
Myanmar	$2.789	$2.766
Namibia	$0.833	$0.819
Nauru	$2.592	$2.569

Outbound International Rates Called Country	Switched Origination	Dedicated Origination
Nepal	$1.180	$1.159
Netherlands	$0.1088	$0.0888
Netherlands Antilles	$0.307	$0.287
Nevis	$0.571	$0.550
New Caledonia	$1.281	$1.259
New Zealand	$1.036	$1.013
Nicaragua	$0.695	$0.673
Niger	$1.092	$1.086
Nigeria	$1.167	$1.145
Niue Island	$1.909	$1.895
Norfolk Island	$1.067	$1.044
Norway	$0.268	$0.246
Oman	$1.085	$1.080
Pakistan	$1.165	$1.140
Palau	$1.295	$1.273
Palestine	$0.689	$0.673
Panama	$0.721	$0.700
Papua New Guinea	$0.849	$0.837
Paraguay	$0.874	$0.853
Peru	$0.2982	$0.2782
Philippines	$0.2361	$0.2161
Poland	$0.188	$0.168
Portugal (including Azores and Madeira Islands)	$0.555	$0.533
Qatar	$1.109	$1.086
Reunion Island	$1.435	$1.418
Romania	$0.746	$0.722
Russia	$0.887	$0.864
Rwanda	$1.437	$1.414
San Marino	$1.214	$1.196
Sao Tome	$1.723	$1.699
Saudi Arabia	$0.770	$0.750
Senegal	$1.396	$1.395
Seychelles	$1.589	$1.577
Sierra Leone	$1.055	$1.032
Singapore	$0.525	$0.479
Slovakia	$0.664	$0.643
Slovenia	$0.817	$0.795
Solomon Islands	$1.333	$1.310
Somalia	$2.967	$2.946
South Africa	$0.237	$0.217

Outbound International Rates Called Country	Switched Origination	Dedicated Origination
Spain (including Balearic Islands, Canary Islands, Ceuta and Melilla)	$0.1088	$0.0888
Sri Lanka	$1.121	$1.116
St. Helena	$1.549	$1.528
St. Kitts	$0.571	$0.550
St. Lucia	$0.682	$0.661
St. Pierre/Miquelon	$0.544	$0.522
St. Vincent/Grenadines	$0.763	$0.742
Sudan	$1.442	$1.421
Suriname	$1.389	$1.374
Swaziland	$0.924	$0.903
Sweden	$0.111	$0.0910
Switzerland	$0.289	$0.266
Syria	$1.167	$1.145
Taiwan	$0.160	$0.1400
Tajikistan	$0.887	$0.864
Tanzania	$0.924	$0.903
Thailand	$0.181	$0.161
Togo	$1.151	$1.128
Tonga	$1.174	$1.151
Trinidad/Tobago	$0.755	$0.734
Tunisia	$0.683	$0.661
Turkey	$0.2884	$0.2664
Turkmenistan	$2.113	$2.095
Turks and Caicos Islands	$0.685	$0.661
Tuvalu	$2.283	$2.261
US Virgin Islands	$0.050	$0.050
Uganda	$0.877	$0.856
Ukraine	$0.776	$0.754
United Arab Emirates	$0.746	$0.722
United Kingdom	$0.085	$0.065
Uruguay	$0.861	$0.843
Uzbekistan	$0.937	$0.914
Vanuatu	$2.286	$2.268
Vatican City	$0.445	$0.422
Venezuela	$0.564	$0.549
Vietnam	$0.545	$0.525
Wallis and Futuna	$2.094	$2.071
Western Samoa	$1.047	$1.025
Yemen, Republic of	$1.077	$1.033
Yugoslavia	$0.830	$0.809

Outbound International Rates Called Country	Switched Origination	Dedicated Origination
Zaire	$0.937	$0.920
Zambia	$0.952	$0.932
Zimbabwe	$0.770	$0.747

Appendix B-2

WorldPhone Rate Table

APPENDIX B-2, Table 1. Worldphone Inbound International Rates

Appendix B-2 WorldPhone Country	Rate Per Minute
American Samoa	1.6509
Anguilla	1.0472
Antigua	1.0566
Argentina	1.2186
Armenia	1.9297
Aruba	0.9252
Australia	1.1824
Austria	0.9722
Bahamas	0.7284
Bahrain	1.2147
Bangladesh	1.7220
Barbados	0.9467
Belarus	1.9297
Belgium	0.4659
Belize	0.9322
Bermuda	0.7693
Bolivia	1.2151
Brazil	0.5329
British Virgin Islands	0.9241
Brunei	1.4148
Bulgaria	1.9297
Canada	0.2727
Cayman Islands	0.9474
Chile	0.5399
China	1.8361

Appendix B-2 WorldPhone Country	Rate Per Minute
Colombia	1.0154
Cook Islands	2.0531
Costa Rica	0.9851
Croatia	1.1967
Cyprus	1.1840
Czech Republic	1.1487
Denmark	1.0119
Dominica	1.0567
Dominican Republic	0.9783
Ecuador	1.0975
Egypt	1.2368
El Salvador	0.9335
Estonia	2.3776
Federated States of Micronesia	1.8836
Fiji	1.8836
Finland	1.0409
France *	0.4492
French Antilles & Martinique - Guadeloupe	0.8751
French Guiana	1.0566
Gabon	1.4008
Gambia	1.3827
Georgia	2.3776
Germany	0.4619
Ghana	1.7477
Greece	1.1561
Grenada (Incl. Carriacou)	0.9864
Guatemala	0.8907
Guyana	1.3003
Haiti	0.9014
Honduras	0.9352
Hong Kong	0.6376
Hungary	1.1957
Iceland	1.0445
India	1.7326
Indonesia	1.4622
Iran	1.6313
Ireland	0.8943
Israel	1.0866
Italy	0.4510
Ivory Coast - Cote d'Ivoire	1.3504
Jamaica	0.9494
Japan	0.5891
Jordan	1.7083
Kazakhstan	1.9297
Kenya	1.3556

Appendix B-2 WorldPhone Country	Rate Per Minute
Korea, The Republic of	1.2046
Kuwait	0.9992
Latvia	1.9297
Lebanon	1.7083
Liberia	1.3378
Liechtenstein	0.9727
Luxembourg	1.0165
Macao	1.6247
Macedonia	1.3206
Malaysia	1.3819
Malta	1.1969
Marshall Islands	1.4836
Mexico: Band 1	0.3662
Mexico: Band 2	0.7407
Monaco	0.8751
Montserrat	0.9863
Morocco	1.9297
Netherlands	0.8684
Netherlands Antilles	0.9127
Nevis	0.7234
New Zealand	1.3821
Nicaragua	0.9910
Norway	0.9313
Pakistan	1.7204
Panama	0.9547
Papua New Guinea	1.5889
Paraguay	1.2852
Peru	1.2053
Philippines	1.2745
Poland	1.2074
Portugal	1.2581
Qatar	1.3142
Romania	1.4295
Russia	1.9297
San Marino	0.8786
Saudi Arabia	1.2092
Senegal	1.9848
Singapore	0.6227
Slovakia	1.1478
Slovenia	1.0765
Solomon Islands	2.0561
South Africa	1.0404
Spain	0.9798
Sri Lanka	1.7573
St. Kitts - Nevis	0.9865
St. Lucia	1.0566

Appendix B-2 WorldPhone Country	Rate Per Minute
St. Vincent/Grenadines	1.0363
Sweden	0.8960
Switzerland	0.9727
Syria	1.7965
Taiwan	1.3189
Thailand	1.3750
Trinidad/Tobago	0.9473
Turkey	1.2959
Turks and Caicos	1.2045
Uganda	1.6303
Ukraine	1.9297
United Arab Emirates	1.1397
United Kingdom	0.4196
Uruguay	1.0788
Uzbekistan	2.3776
Vatican City	0.8786
Venezuela	0.8653
Vietnam	1.6786
Yemen, Republic of	1.1636
Zambia	1.7118

APPENDIX B-2, Table 2. Worldphone Country to Country Calling

(Note: Combine Originating Country Zone rate per minute with Terminating Zone Country rate per minute)

Zone Name	Originating RPM	Terminating RPM
Africa	0.9069	1.0296
Asia	1.2205	1.2069
Australia	1.0910	0.8591
Belgium	0.8250	0.8591
Brazil	2.0729	1.0296
Canada	n/a	0.6137
Caribbean	0.8659	0.8591
Central America	0.8659	1.0296
China	1.7183	1.7183
Commonwealth of Independent States	1.7115	1.3774
Eastern Europe	0.7842	0.8591
France	0.7909	0.8591
Hong Kong	1.1453	1.2069
Israel	0.9478	1.1874
Italy	0.7637	1.0296
Japan	1.1114	0.8591
Korea	1.0637	1.2069
Mexico: Step A	0.5660	0.8591
Mexico: Step B	1.1933	0.8591
Middle East	1.1387	1.2069
Netherlands	0.7500	0.8591
Northern Europe	0.7773	0.8591
Saudi Arabia	1.2342	1.3774
Singapore	1.0841	1.2069
South America	0.9478	1.0296
South Pacific	1.1523	0.8591
Spain	0.8455	1.0296
United Kingdom	0.6955	0.8591
Western Europe	0.7909	0.8591

Appendix B-3

International Toll Free Table

APPENDIX B-3, Table 1. International Toll Free Rates

International Toll Free Rates Calling Country	Switched	Dedicated
American Samoa	1.1475	1.1145
Anguilla	1.8481	1.7582
Antigua (Barbuda)	0.8600	0.8400
Argentina	0.7950	0.7750
Australia (including Tasmania)	0.6750	0.6550
Austria	1.3916	1.3423
Bahamas	0.5350	0.5170
Bahrain	0.9300	0.9120
Barbados	0.7000	0.6800
Belgium	0.7000	0.6795
Bermuda	0.5550	0.5340
Bolivia	0.8400	0.8200
Brazil	0.7200	0.6995
British Virgin Islands	1.9853	1.8957
Canada	(See Below)	(See Below)
Cayman Islands	1.2850	1.2640
Chile	0.8200	0.7995
China	1.4950	1.4745
Colombia	0.7750	0.7575
Costa Rica	0.7300	0.7080
Cyprus	0.9900	0.9695
Denmark	0.7550	0.7360
Dominica	2.1121	2.0171
Dominican Republic	0.5850	0.5645
Ecuador	1.0500	1.0430
El Salvador	1.0250	1.0030
Finland	0.7550	0.7340
France	0.7450	0.7230
Germany	0.6950	0.6730
Grenada	1.7847	1.6897
Greece	0.7100	0.6900
Guatemala	0.6550	0.6340
Guyana	1.1375	1.1200
Hong Kong	0.8850	0.8640
Hungary	0.7000	0.6800

International Toll Free Rates Calling Country	Switched	Dedicated
Indonesia	0.9500	0.9280
Ireland	0.7400	0.7180
Israel	0.8450	0.8235
Italy (incl San Marino & Vatican City)	0.7550	0.7330
Jamaica	0.7000	0.6780
Japan	0.8150	0.7935
Korea, Republic of	0.8700	0.8480
Latvia	1.9642	1.9250
Luxembourg	0.7300	0.7080
Malaysia	0.8650	0.8430
Marshall Islands	1.3955	1.3900
Martinique	2.2319	2.1170
Mexico	(See Below)	(See Below)
Monaco	0.7450	0.7230
Montserrat	1.8481	1.7582
Netherlands	0.7000	0.6780
Netherlands Antilles	0.6450	0.6230
Nevis	0.7000	0.6900
New Zealand	0.9650	0.9400
Nicaragua	0.9200	0.8985
Norway	0.7550	0.7340
Panama	0.6750	0.6535
Peru	1.1250	1.1035
Philippines	0.8200	0.7985
Poland	1.0945	1.0895
Portugal (including Azores and Madeira Islands)	0.9000	0.8780
Qatar	1.8150	1.7930
Romania	1.3000	1.2815
Russia	0.9987	0.9811
San Marino	1.8319	1.7786
St. Vincent/Grenadines	0.7050	0.6850
Singapore	0.8450	0.8230
South Africa	1.0750	1.0530
Spain (incl. Balearic Isles, Canary Isles, Ceuta & Melilla)	0.7950	0.7730
St. Kitts	0.7000	0.6900
St. Lucia	1.2850	1.2630
Sweden	0.7000	0.6780
Switzerland	0.7550	0.7330
Taiwan	0.7750	0.7530
Thailand	1.0000	0.9850
Trinidad/Tobago	0.7000	0.6800
Turkey	1.0055	1.0000
Turks and Caicos Islands	0.9724	0.9524
United Arab Emirates	1.8100	1.7885

International Toll Free Rates Calling Country	Switched	Dedicated
United Kingdom	0.5850	0.5630
Uruguay	0.7750	0.7750
Vatican City	0.7550	0.7330

APPENDIX B-3, Table 2. International Toll Free Rates - Canada

Canada Origination	Switched	Dedicated
Range 7	$0.1913	$0.1820
Range 8	$0.2715	$0.2631
Range 9	$0.2715	$0.2631

APPENDIX B-3, Table 3. International Toll Free Rates - Mexico

Mexico Origination Switched Access	Standard	Economy
Service Area M1	$0.2650	$0.1990
Service Area M2	$0.4700	$0.3525
Service Area M3	$0.6250	$0.4690
Service Area M4	$0.8350	$0.6265

APPENDIX B-3, Table 4. International Toll Free Rates - Mexico

Mexico Origination Dedicated Access	Standard	Economy
Service Area M1	$0.2550	$0.1915
Service Area M2	$0.4600	$0.3450
Service Area M3	$0.6100	$0.4575
Service Area M4	$0.8250	$0.6190

Universal International Freephone Number Service (UIFN)
Universal International Freephone Numbers (UIFN) are a new access method for International Toll Free Service (ITFS), MCI continues to support prevailing international toll-free usage rates for access from available countries. In addition, the prevailing non-recurring and recurring fees for facilities, installation, and toll-free features will apply.
Monthly Recurring Charge (MRC)

- $10 Monthly Recurring Charge
  Note: The ITU charges a one-time registration fee of 200 Swiss Francs (approximately $155 U.S.) for each UIFN request. This fee is passed on to customers via their MCI Toll Free invoice.

Appendix B-4

Mobile Termination Rate Table

MOBILE TERMINATION PRICE GUIDE October 15, 2003

MCI will discount these rates in accordance with standard discounts received for this product which received from finance. This will be completed in a MOD to the contract.

Location	Per-Minute Rate
Andorra	$0.3733
Argentina	0.1973
Australia (including Tasmania)	0.1556
Austria	0.2021
Belgium	0.2025
Bolivia	0.1792
Bosnia	0.1852
Brazil	0.1416
Bulgaria	0.1566
Cambodia	0.3176
Chile	0.1781
China	0.0700
Colombia	0.0950
Croatia	0.1932
Cyprus	0.2132
Czech Republic	0.1343
Denmark	0.1969
Egypt	0.1960
El Salvador	0.1169
Estonia	0.2422
Finland	0.1634
France	0.2258
Georgia	0.2068
Germany	0.1965
Gibraltar	0.1779
Greece	0.2345

Location	Per-Minute Rate
Guadeloupe	0.1668
Guatemala	0.1191
Guinea	0.1835
Haiti	0.2685
Hungary	0.1799
Iceland	0.2029
India	0.2299
Indonesia	0.1587
Ireland	0.2096
Israel	0.1158
Italy	0.1885
Jamaica	0.1881
Japan	0.1753
Jordan	0.2047
Korea, Republic of	0.0689
Latvia	0.2099
Lebanon	0.2140
Liechtenstein	0.2400
Lithuania	0.1192
Luxembourg	0.1976
Macedonia	0.2209
Malaysia	0.0341
Monaco	0.2045
Morocco	0.2485
Netherlands	0.2367
Netherlands Antilles	0.1648
New Zealand	0.1938
Nicaragua	0.2873
Norway	0.1554
Oman	0.3651
Panama	0.2020
Paraguay	0.1670
Peru	0.2526
Philippines	0.1296
Poland	0.2347
Portugal (including Azores and Madeira Islands)	0.2180
Qatar	0.3057
Romania	0.2242

Location	Per-Minute Rate
Russia	0.0875
Slovakia	0.1547
Slovenia	0.1862
South Africa	0.1857
Spain (including Balearic Islands, Canary Islands, Ceuta and Melilla)	0.1980
Sweden	0.1930
Switzerland	0.2567
Taiwan	0.0876
Tanzania	0.3726
Turkey	0.2021
United Kingdom	0.2138
Uruguay	0.1778
Venezuela	0.2808
Vietnam	0.3931
Yemen, Republic of	0.3151
Zaire	0.2900

Attachment C
Service Ordering and Provisioning

C.1 General

To address the full scope of the COVANET services, order processing and tracking will be facilitated through hardcopy transfer of information. This Attachment will describe order placement and tracking procedures to be used by both MCI and COV.

C.2 Order Placement

The Contractor must provide VITA with up-to-date names and telephone numbers of its primary and backup ordering contacts who will be responsible for resolving ordering and provisioning issues, and a dedicated fax number to which all orders will be transmitted. VITA will send copies of all orders via facsimile (fax) to MCI at 804-527-6720, and ultimately, through the electronic transfer of order records. Any required change to this fax number will be communicated by MCI to VITA in writing. VITA will use the faxed hardcopy to detail end-to-end requirements (i.e. ARS, ANI, special routing instructions, features, and supplemental codes, etc.) that are required in the orders. When service orders are processed, they will be entered into MCI's Web based tracking system for complete status reporting and tracking.

C.3 Operational Requirements

This Section describes operational requirements for the order processing procedures.

C.3.1 COV Responsibilities

- VITA will provide a hardcopy service order to MCI in a standardized format that contains all required information.

- VITA will act as the sole point of contact for the placing of all COVANET service orders, excluding authorized DSP participants. VITA will appoint Ordering Officers. No order will be implemented without an official service order from VITA's designated Ordering Officers.

C.3.2 MCI Responsibilities

- MCI will interface only with VITA and authorized DSP participants for the provisioning of COVANET service orders.

- MCI will only accept COVANET service orders executed by DSP or VITA authorized Ordering Officers. Changes, additions or deletions to issued service

orders will not be accepted unless approved by authorized DSP or VITA Ordering Officers.

- MCI will act as VITA's agent in dealing with Local Exchange Carriers (LECs), provided that VITA executes explicit Letters of Agency (LOAs) to be provided to the LECs. These LOAs will designate MCI as agent for the Commonwealth and will contain detailed instructions regarding services to be procured on behalf of COV by MCI.

- MCI will receive the VITA service orders via fax server. Retrieval of the orders will occur at a minimum three times each business day at 08:30AM, 12:00 PM, and 4:00PM. Orders received after 4:00PM will be acknowledged as arriving the following business day.

- MCI will acknowledge receipt of each COVANET service order from VITA within one business day of receipt in a manner mutually agreed upon by MCI and VITA.

- For each service order requesting the association of long distance access for a telecommunications facility to this contract, MCI shall process the order within three (3) business days.

- For each voice circuit and data circuit service order, MCI will process the order promptly and confirm the accuracy of the requested configuration within five (5) business days of the receipt of the order. In addition, within the same five (5) business day time frame, MCI will also determine if any engineering changes are required to the configuration, and notify VITA or its authorized DSP participants of those changes in writing, including any revised circuit numbers assigned. Within fifteen (15) business days of the receipt of the order from VITA or its authorized DSP participants, MCI will provide VITA or its authorized DSP participants with a "confirmed due date" (i.e. a firm installation date upon which the installation will be completed and the service will be available for use by the customer).

- For every other service order, MCI will process the order promptly. At a minimum, MCI will provide VITA or its authorized DSP participants with a "confirmed due date" (i.e. a firm installation date upon which the installation will be completed and the service will be available for use by the customer) no less than three (3) business days in advance of the original installation date requested on the service order.

- At the request of VITA, MCI will provide an updated status of any outstanding VITA service order within an average of two business hours of receipt of the request.

- Within 24 hours of learning that a critical ordering date will be missed, MCI will notify VITA, and provide an explanation for the missed date, and the follow-up actions to be taken.

- MCI will generate weekly voice and data service order status reports and send the reports, via Electronic Mail or fax, to recipients designated by VITA.

- MCI will provide VITA with a Web site so that it may review and/or print any order status report as it desires. MCI will keep status information on this web site accurate and up to date.

- MCI will provide VITA with up to date names and telephone numbers of MCI's primary and backup ordering contacts that will be responsible for resolving ordering and provisioning issues.

C.4 Installation Intervals and Status Reporting

C.4.1 Installation Intervals

The standard intervals within which MCI agrees to install and disconnect COVANET voice and data services are set forth in Tables C-1 and C-2. MCI will inform VITA of issues as they arise on each order and via the status report. The installation intervals are based on standard MCI and LEC intervals. VITA or authorized DSP participants may request expedited installation of service in less time than the intervals stated in Tables C-1 and C-2. Service orders will only be considered to be expedited if the word "expedite" is used on the service order. An expedite charge will be applied for those orders where an expedited installation is requested and MCI completes the order in less time than the intervals in Tables C-1 and C-2. In case of such expedited orders, the Commonwealth will reimburse MCI, without mark up, for any additional cost MCI incurs from a LEC or subcontractor to expedite the installation.

Table C-1. Installation/disconnect intervals for voice services (Business Days)

Voice Services			
Product	Change Orders	New Installs	Disconnects
ANI or ISDN/BRI + Calling Card Services			
Small orders (<25)	3	3	3
Small orders (<100)	5	5	5
Large orders (>100)	15	15	12
Large orders (>500)	21	21	12
Toll Free Services			
Install with ANI termination	5	5	5
Install with T1 termination	25	25	12
Enhanced Call Routing	Individual Case Basis	Individual Case Basis	12
Other Voice Services			
Voice Grade Private Line	25	25	12
Operator / Payphone Services	25	25	12
ImagePort Fax	10	5	10

Table C-2. Installation/ disconnect intervals for data services (Business Days)

Data Services			
Product	Change Orders	New Installs	Disconnects
Private Line Services			
DS-0	25	25	12
Fractional DS-1	25	25	12
DS-1	25	25	12
DS-3	49	49	12
OC-3	Individual Case Basis	Individual Case Basis	12
Switched Data Services			
Switched 56/64	25	25	12
Switched DS-1	25	25	12
ISDN/PRI	25	25	12
COVANET Frame Relay Services			
56 Kbps	25	25	12
DS-1 /Fractional DS-1	25	25	12
DS-3/Fractional DS-3	49	49	12
PVC	10	10	10
COVANET ATM Services			
56 Kbps	25	25	12
DS-1	25	25	12
DS-3	49	49	12
OC-3	Individual Case Basis	Individual Case Basis	12
COVANET Internet Services			
UUDial Solo	7	7	7
56 Kbps	40	40	12
DS-1	40	40	12
DS-3	60	60	12
OC-3	Individual Case Basis	Individual Case Basis	12
COVANET Managed VPN Services			
Equipment installation	N/a	30	12
COVANET DSL Services			
256K – 1.5M	30	30	12

C.4.2 Order Confirmation and Status Reports

MCI will provide VITA and authorized DSP participants information on individual orders as significant events occur. In addition, MCI will on a weekly basis provide by email voice and data Order Confirmation and Status Reports to individuals designated by VITA. These reports will include status information on all COVANET outstanding orders. Samples of these reports are provided in Appendix 1 to Attachment C, and the fields are described in Table C-3 below.

Table C-3. Order Confirmation and Status Report Field Description

Field	Description
VITA Contact (Submit)	The name of the VITA contact identified on the service order.
Service Order Number (OGTS)	For each COVANET order received, a unique Order Number will be assigned.
Circuit Name (CktName)	Identifies the customer by name.
MCI Circuit ID (MCI_Ckt_ID)	For dedicated access (ON-NET Toll Free, Data Circuit) orders, a unique MCI Circuit ID(s) will be assigned.
Service Number (Service #)	A unique MCI Service Number will be assigned when a new account is created (existing Service Numbers may be referenced when adding ANIS or Calling Cards to existing accounts).
MCI Order Number (MCI_Order_#)	For each COVANET order received, a unique MCI Order Number will be assigned.
Date Received (Date_Rx)	MCI will include the date the COVANET order is received from VITA. The Order Receipt Date will be provided on the Order Confirmation and Status Report within two (2) business days after the order is received by MCI.
Requested Service Date (Requested In Service Date)	MCI will provide VITA with the requested service date for each COVANET order.
Firm Order Confirmation Schedule Date (Telco_Due)	For each COVANET order received, where MCI is acting as COV's agent in ordering LEC facilities, the Scheduled LEC (FOC) Circuit Delivery Date will be provided.
Circuit Delivery (Telco_Accepted)	Notes that date the LEC delivered the local loop.
Installation Date Problem (Jeopardy)	A flag indicating that the requested service date is likely to be missed.
Remarks (InstallRemarks)	Space for comments on the installation, including FOC dates, supplemental orders, etc.
Date Installation Completed (Actual In Service Date)	The date that installation was completed.

C.5 Calling Card Provisioning

VITA or authorized DSP Ordering Officers will provide camera-ready art and a general idea of the desired look of the card, for initiation of card production. The MCI Calling Card Project Manager will produce paper mock-ups of the customer's custom card design. These mockups will be sent to the MCI account representative. Customers should allow a minimum of five (5) business days from receipt of the completed Custom Card Order Form and camera-ready art for the creation of mock-ups.

If approved with no changes, customers will be required to sign the sample card mock-up and return it to the MCI for final art production. If the mock-ups are not approved and additional changes are necessary, the Calling Card Project Manager will be sent additional instructions and will provide a revised timeframe. After receiving the Commonwealth's approved proof, the MCI Card Project Manager will verify signatures and coordinate production of the cards.

Actual Custom Card production takes approximately 8-10 weeks. Expedite processing may be available at an additional charge to be negotiated at the time of the request. At the end of the process, a memo will be sent by MCI's COVANET Account Management Team to advise that calling cards can be ordered.

The COVANET Account Management Team will monitor the calling card inventory quantities so that a minimum of 3,000 cards will be kept in inventory at all times. MCI will use the existing "final artwork" to create the additional calling cards.

MCI will provide the Commonwealth custom calling cards in bulk to VITA in an inactive state. VITA can then activate each card by dialing into a configuration management system at MCI.

Several DSP universities use their own MCI calling card. Each university has its own custom calling card and does its own card activation. MCI will continue to support this capability.

Appendix 1

submit	OGTS	CktName	MCI_Ckt_ID	Service#	MCI_Order_#	Date_Rx	Requested In Serive Date	Telco_Due	Telco_Accepted	Jeopardy	InstallRemarks	Actual In Serive Date
Brenda Batkins	306399	R.T. Arnold Library	C6BFH6FD0001	P0914556	CQBCYKRG	06/09/03	07/03/03					
Brenda Batkins	306425	Ripberger Public Library	C6BFJYST0001	P0917818	CQBCYNHK	06/09/03	07/03/03					
Brenda Batkins	306428	Victoria Public Library	C6BFH9BL0001	P0915111	CQBCYPN2	06/09/03	07/03/03					
Brenda Batkins	317202	HCD	T5BCHM140001	P0658158	OQBCXLZM	05/29/03	07/11/03					
Brenda Batkins	317203	Housing & Community Development	C6BDHXKN0001	P0761702	OQBCXPNG	05/29/03	07/11/03					
Brian White	318266	Court of Appeals - Judge Felton	C6BGV61C0001	P1061617	CQBC0K98	06/26/03	07/03/03					
Brian White	307116	Soutwest Va. Comm. Corrections	C6BFYKB20001	P0967110	OQBC0LBX	07/03/03	07/24/03					
Brian White	318229	ABC			042603	07/02/03	08/18/03					
Brian White	305326	DSS	MGBD2BC90001	P0852385	CQBCV7C4	05/16/03	06/19/03	06/17/03	06/19/03			
Dorothy Boland	304375	Huguenot High School	MGBG9WH90001	P1124369	IQBCT5BP	04/07/03	05/30/03	06/30/03	07/02/03			
Dorothy Boland	306638	Marion Correctional Treatment Center	D6F142090001	P0120519	OQBCY5HD	06/17/03	07/07/03					
Harold Sasser	217202	VSP - Richmond				06/03/02	12/31/02				MS Sameday.	
Harold Sasser	206177	VSP-Div 2 HQ/Culpeper/006				06/06/02	12/31/02				MS	
Harold Sasser	206236	VSP-Div 3 HQ/007				06/10/02	12/31/02				MS	
Harold Sasser	206261	VSP-Div 5 HQ/009				06/10/02	12/31/02				MS	
Harold Sasser	206257	VSP-Div 4 HQ/008				06/10/02	12/31/02				MS	
Harold Sasser	206271	VSP-Div 7 HQ/0011				06/11/02	12/31/02				MS Sameday.	
Harold Sasser	206263	VSP-Div 6 HQ/0010				06/11/02	12/31/02				MS Sameday.	
Harold Sasser	301228	Portsmouth SO Complex VSP0185				01/08/03	02/04/03					
Harold Sasser	301467	Blackstone PD VSP0190				01/16/03	02/11/03					
Harold Sasser	301683	Area 22 VSP0192				01/16/03	02/12/03					
Harold Sasser	302448	Bedford City PD, VSP0196				02/14/03	03/14/03					
Harold Sasser	302482					02/14/03	03/17/03					
Harold Sasser	302601	Rockbridge Reg Public Safety/VSP0206				02/19/03	03/18/03					
Harold Sasser	305622B	Supreme Court of Va-Humphreys				05/13/03	05/21/03					
Harold Sasser	304030	Caroline Co. SO/VSP0241				04/02/03	06/15/03					
Harold Sasser	305909	Albemarle-Charlottesville Reg. Jail/VSP0329				05/21/03	06/17/03					
Harold Sasser	306710	ABC	042571			06/13/03	06/30/03	06/25/03				
Harold Sasser	318342	US Probation Office/VSP00344				06/26/03	07/23/03					
Harold Sasser	318345	US Probation/VSP00345				06/26/03	07/23/03					
Harold Sasser	318348	US Probation/VSP00346				06/26/03	07/23/03					
Harold Sasser	318264	Fluvanna Circuit Court				06/26/03	07/24/03					
Harold Sasser	318263	Williamsburg/James City Court				06/26/03	07/24/03					
Harold Sasser	318369	Hampton University PD/VSP00115				06/27/03	07/24/03					
Harold Sasser	318419	DSS				07/01/03	08/01/03				sustained 750 and burst of 750. Assign to WTN_500 colo card S16.6 DSX SHD 0.38 16B-6	
Harold Sasser	317348	Dept. of Conservation & Recreation	C6BFNDCM0001	P0932626		05/30/03	09/01/03					
Harold Sasser	306935	US Probation Office/VSP00341	T5BHCTBB0001	P1136217	IQBC0D86	06/26/03	07/29/03					
Harold Sasser	304265	Mary Washington College PD/VSP0252	T5BG833R0001	P1119650	IQBCRTJT	04/04/03	06/04/03	06/19/03	06/19/03		supped to have demarc extended	07/03/03
Harold Sasser	304849	Albermarle CC	MHBG9S960001	P1123887	IQBCTZM2	04/16/03	07/11/03	07/18/03			canceled per Harold's request	07/03/03
Harold Sasser	304895	Roanoke City GDC	MHBG9Y7D0001	P1124983	IQBCVD1S	04/16/03	07/17/03	06/27/03		yes	escalating for late loop	
Harold Sasser	304887	Roanoke County GDC	MHBG9Y850001	P1124996	IQBCVD73	04/16/03	07/17/03	07/11/03				
Harold Sasser	304877	Va. Beach GDC	MHBG90CB0001	P1125017	IQBCVFGP	04/16/03	07/16/03	06/26/03			canceled per Harold's request	07/03/03
Harold Sasser	304873	Norfolk GDC-Traffic	MHBG90WC0001	P1125125	IQBCVGPF	04/16/03	07/03/03	06/27/03		yes	escalating for late loop	
Harold Sasser	304716	Prince William GDC	MHBHBG3P0001	P1128382	IQBCWQRY	05/05/03	07/24/03	07/03/03			will have to get Concert to extend demarc	
Harold Sasser	317161	Dept. of Rehab Services	MHBHBW020001	P1130802	IQBCX04Z	05/30/03	08/13/03	08/26/03			MGBCDCFW0001 and MGZ327710001. All PVC's are mapped to the same locations. ATM to frame relay translation. The QOS for the non internet traffic is to be VBR/RT. The internet traffic is to be UBR. CDR200306020018	
Harold Sasser	305039	Pentagon Force Protection Agency/VSP0318	T5BHBRLM0001	P1129809	IQBCXL5R	05/07/03	06/25/03	06/19/03		yes	Verizon construction issue	

Harold Sasser	306482	Hanover Circuit Court	C6BHB8XN0001	P1132983	IQBCY0WW	06/11/03	07/10/03	07/03/03	06/30/03		IZA0A82Z	07/03/03
Harold Sasser	306154	ABC Store # 354	C6BHB0770001	P1131501	IQBCYBCR	06/05/03	07/03/03	06/27/03	06/27/03	yes	IZA0A6IG opened trouble ticket with Verizon…bad loop	
Harold Sasser	306365	Radford Univeristy PD/VSP0302	T5BHB4N20001	P1132065	IQBCYL34	06/09/03	07/08/03	06/30/03				
Harold Sasser	306155	ABC Store # 196	C6BHB4HR0001	P1132007	IQBCYLQS	06/05/03	07/03/03	06/30/03			IZA0A6T4	
Harold Sasser	306595	Rocky Mount PD/VSP0337	T5BHB77V0001	P1132814	IQBCYYM4	06/12/03	07/11/03	07/02/03	07/01/03			07/03/03
Harold Sasser	306347	DSS	MGBHCFS30001	P1134015	IQBCZGHN	06/13/03	08/06/03	07/16/03			QOS will be VBR-NRT with peak cell rate of 1500, sustained rate of 750 and burst of 750. Assign to ROT Colo Slot 16 Port 4 DSX SHD 6.01 Shelf 16A 04	
Harold Sasser	306702	Rappahannock Reg. Jail/VSP0336	T5BHCG860001	P1134326	IQBCZL0Q	06/13/03	07/18/03	07/11/03				
Harold Sasser	211336	Roanoke City PD.-VSP0153			NOC	11/13/02	12/05/02				MS sameday	
Harold Sasser	208552	Greensville Co Sheriff Ofc-VSP0050			NOC	08/15/02	12/31/02				MS Sameday.	
Harold Sasser	209995	VA State Police Area 46-VSP0069			NOC	09/20/02	12/31/02				MS Sameday.	
Harold Sasser	210199	DOC-VSP0091			NOC	10/03/02	12/31/02				MS Sameday.	
Harold Sasser	210205	Central Va. Comm Coll. Inst.-VSP0094			NOC	10/03/02	12/31/02				MS Sameday.	
Harold Sasser	210081	Roanoke-US Marshall-VSP0084			NOC	10/03/02	12/31/02				MS Sameday.	
Harold Sasser	210087	Frederick Co. Sheriff-VSP0085			NOC	10/03/02	12/31/02				MS Sameday.	
Harold Sasser	210115	Norfolk Complex-VSP0090			NOC	10/04/02	12/31/02				MS Sameday.	
Harold Sasser	210328	Harrisonburg PD.-VSP0101			NOC	10/04/02	12/31/02				MS Sameday.	
Harold Sasser	210532	Alexandria Police Dept.-VSP0109			NOC	10/10/02	12/31/02				MS Sameday.	
Harold Sasser	210528	Hampton PD VSP0107			NOC	10/09/02	12/31/02				MS sameday	
Harold Sasser	210922	Hampton Univ. PD-VSP0115			NOC	10/18/02	12/31/02				MS sameday	
Harold Sasser	210714	James City Co. PD.-VSP0119			NOC	10/18/02	12/31/02				MS sameday	
Harold Sasser	210706	State Police Div. 1 DSD-VSP0117			NOC	10/18/02	12/31/02				MS sameday	
Harold Sasser	222432	VSP-Area 13 - VSP0136			NOC	10/29/02	12/31/02				MS sameday	
Harold Sasser	222602	VSP-Area 42 - VSP0146			NOC	10/30/02	12/31/02				MS sameday	
Harold Sasser	211722	Norfolk State University PD-VSP0158			NOC	11/15/02	12/31/02				MS sameday	
Harold Sasser	223008	Petersburg PD-VSP0166			NOC	11/26/02	12/31/02				MS sameday	
Harold Sasser	223009	DMV-VSP0167			NOC	11/20/02	01/29/03					
Harold Sasser	223011	DMV-VSP0167			NOC	11/25/02	01/29/03				MS sameday	
Harold Sasser	223084	VCU Campus Police-VSP0170			NOC	11/27/02	01/31/03				MS sameday	
Harold Sasser	302488	Bristol SO/VSP0200			NOC	02/18/03	03/17/03				MS Sametime	
Harold Sasser	302595	Powhatan County SO /VSP0204			NOC	02/19/03	03/18/03				MS Sametime	
Harold Sasser	302591	Alleghany CO SO /VSP0203			NOC	02/19/03	03/18/03				MS sametime	
Harold Sasser	302562	Brunswick CO SO /VSP0202			NOC	02/19/03	03/18/03				MS sametime	

Attachment D
Billing and Chargeback

D.1 General

It shall be the responsibility of the Contractor to provide accurate and timely billing and invoice information for the telecommunications services that the state acquires. MCI will bill for usage, recurring, and non-recurring charges as specified in Attachment B, Rates and Charges. The billing capabilities described in this attachment will be available upon contract signing, unless otherwise stated.

D.2 Billing

D.2.1 Services Billed

The services to be billed by MCI include the services described in Attachment A and priced in Attachment B.

D.2.2 Billing Methods

D.2.2.1 Invoice

All services will be billed directly to VITA unless otherwise specified by VITA through the Direct Service Plan (DSP) as described in Attachment G.

Voice and Data (Frame Relay, ATM, Internet) Services. MCI's billing system will provide the Commonwealth with flexibility to accommodate both VITA direct billing and DSP billing. DSP participation is currently limited to only voice services for state universities and local governments. DSP participation in data services may be added, subject to agreement between VITA and MCI. Billing of MCI services is managed through either Corporate IDs or Billing IDs. Billing IDs are associated with private line services. These IDs are established to create a master account level. All services ordered in association with each ID belong to the single customer established at the master account level. For example, MCI will create one Corporate ID for VITA direct billed toll free services and individual Corporate IDs for each DSP participant's toll free service.

Other Services. Where the Local Exchange Carrier installs the required inside wiring, the charges will be passed through without markup. Some LECs require that inside wiring be billed to the user's location. MCI will invoice other possible subcontracted services under separate cover. Specific billing arrangements will be finalized when such services are ordered and are subject to mutually agreeable terms.

D.2.2.2 E-Rate Customers

At VITA's direction, MCI will provide Universal Service Fund (USF) eligible services to designated customers as VITA billed E-Rate customers. E-Rate service ordering and billing will be handled in the same manner as other VITA billed customers. These E-Rate customers will then work directly with MCI to obtain their USF discount reimbursements. MCI will promptly provide the required support for these E-Rate customers to obtain their USF discount reimbursements via BEAR Forms.

MCI agrees to fulfill its obligations to USF Participants in accordance with the USF program as administered by the USAC. MCI agrees and understands that it shall be responsible for resolving all service problems and the administration of said contract with USF Participants in accordance with its existing obligations under the contract.

D.2.2.3 Reporting

Reporting is provided to VITA through two mechanisms, invoices (payment vehicle) and management reports (reporting only, not a payment vehicle).

Invoice Reporting. MCI's invoices provide comprehensive reporting for both VITA and for DSP participants. The following outlines the invoice reports available. An (*) indicates the item will be provided at no cost.

1. On-net Service Standard Invoice Package
   - Summary of Amount Due*
   - Usage Summary Report*
   - Summary of Location Charges
2. On-net Service Optional Invoice Reports
   - Call Detail Report*
3. Private Line Services Standard Invoice Package
   - Summary of Amount Due*

Management Reporting

1. On-net:
   Corporate Level Reporting provided to VITA or DSP participants will include the following. An (*) indicates the item will be provided at no cost:

   - Overall Corporate & Location charges*
   - Overall Summary of Location charges*
   - Overall Usage Summary*
   - Overall Interswitch DTO Summary*
   - Overall Dedicated Access Line Detail*
   - Overall Cost Allocation Report by Group*

- Overall Cost Allocation Report by ANI *
- Overall Cost Allocation Report by On-net *
- Corporate Feature Charges*
- Corporate Miscellaneous Charges*

Location Level Reporting:

- Location Usage Summary
- Location Dedicated Access Line Detail
- Location Feature/Miscellaneous Charges
- Location Cost Allocation Report by Group
- Location Cost Allocation Report by ANI
- Location Cost Allocation Report by On-net
- Location Summary by Mileage Band & Time of Day
- Location Summary by Area Code/Country code/RNX

Commissionable Services. MCI will provide reports detailing operator and payphone services usage and commissions to individual customers participating in this service. Commissions will be paid by MCI in accordance with the rates contained in attachment B. MCI will provide copies of all such reports to VITA.

D.3 Billing Cycles

MCI will provide one copy of each invoice and/or magnetic tape to VITA and authorized DSP participants. The invoices and tapes will provide the information necessary for the Commonwealth to verify the correct amount to pay MCI. Except for DSP participants, all invoices will be sent to the following address unless otherwise specified by VITA.

Commonwealth of Virginia
Virginia Information Technologies Agency
Attention: Accounts Payable
110 South Seventh Street, 3rd Floor, Richmond, VA 23219

Invoices and magnetic tapes for DSP participants will be sent to addresses provided by each DSP participant. In addition, a copy of each magnetic tape sent to a DSP participant will also be sent to VITA.

MCI will bill the Commonwealth on a monthly basis. Usage-based services are billed in arrears and recurring services are billed in advance. The actual billing cutoff date for MCI products is not necessarily the last calendar day of each month. MCI uses several different billing cutoff dates. Table D-1 below provides the billing cycle, the date the invoice will be delivered and the date electronic media such as magnetic tapes or spreadsheets will be delivered for select MCI products.

Table D-1. Billing Cycle Matrix.

Product	Period Covered	Date Invoice Delivered	Date Electronic Media Delivered
Private Line Services	1st-31st	10th	10th
Switched Data Services	1st-31st	10th	
ISDN Services	1st-31st	10th	
Frame Relay Services	1st-31st	10th	10th
ATM Services	1st-31st	10th	10th
DSL Services	1st-31st	10th	10th
Internet Services	7th-6th	7th	
EDI-Net Services	1st-31st	1st	
VPN Services	1st-31st	10th	
Intrusion Detection Services	1st-31st	10th	
International Private Line	1st-31st	1st	
On-Net Long Distance Services	1st-31st	10th	10th
Inbound Domestic Toll Free Services	1st-31st	15th	15th
Interactive Voice Response (ECR)	1st-31st	15th	15th
Private Line Voice Services	1st-31st	10th	10th
ImagePort Fax Services	1st-31st	10th	
Audio Conferencing Services	1st-31st	1st	
Video Conferencing Services	1st-31st	15th	

D.4 Format

MCI will provide bills and/or reports to VITA in the following formats:

D.4.1 Hardcopy

All MCI invoices and Management Information Reports will be provided monthly in hardcopy format unless otherwise directed by VITA or DSP participants.

D.4.2 Magnetic Tape

MCI will send one copy of each magnetic tape via overnight courier to the Billing Manager – Finance and Accounting Division at VITA. DSP participants will be sent magnetic tapes at the address that they specify. In addition, a copy of each magnetic tape sent to a DSP participant will also be sent to VITA. The magnetic tape shall be deemed certified by MCI to be in proper format, free of all defects and ready for processing by VITA. Submission of the magnetic tape to the Commonwealth shall mean that the tape is deemed certified by MCI at the conclusion of MCI's magnetic tape production process. MCI shall not be responsible for any damage to magnetic tapes that may occur during transit from MCI to the Commonwealth. The Commonwealth should notify MCI (National Account Team Billing NASS) within five (5) business days of receipt of the magnetic tape if a problem with the tape is discovered. MCI will use best reasonable

efforts to provide a replacement magnetic tape within 48 hours of receipt of the Commonwealth's request. Magnetic tape replacements will be provided within a maximum of 10 business days of the Commonwealth's request. The Commonwealth will not be expected to pay a monthly invoice until both the magnetic tape and hardcopy invoices are received.

MCI magnetic tape delivery is dependent on the original invoice production cycle. If there are no original billing system errors or delays, the billing information will arrive on an average of 10 business days after the end of the billing cycle. If there is a delay not related to the original billing system, the MCI account team's support consultant will contact the tape library for status. If the magnetic tape was created and shipped, MCI will contact the shipping company in order to provide an update to the Commonwealth.

If VITA requests files with fixed field lengths versus spreadsheets, MCI will provide magnetic tapes for large volumes of detail such as outbound/inbound long distance calling and private line circuits.

D.5 Start Date

Rates defined in Attachment B shall be billed by MCI on the Commonwealth invoices within 60 days of the effective date.

D.6 Carrier Access Charges (CAC)

- VITA will scan the VITA TEAMS database to determine the number of each of the various voice local service line types that VITA has ordered added to MCI's On-Net database.
- VITA will multiply the number of each of the various line types by the rate for that line type as specified in Attachment B to this Agreement.
- The resulting charges for all line types will be totaled to determine the fixed Carrier Access Charge to VITA.
- The amount of the fixed Carrier Access Charge will be provided to MCI along with the supporting calculations detailing how the amount was determined.
- MCI will review the documentation provided by the Commonwealth and provide its acceptance of the amount of the fixed Carrier Access Charge in writing to the VITA Assistant Controller and to the VITA Contracts Manager.
- MCI will implement the agreed upon fixed charge for the subsequent six month billing period.
- This process will be repeated semiannually to determine the fixed Carrier Access Charge for the following six month period using the latest TEAMS information.

DSP customers will be billed for the Carrier Access Charge using a process to be agreed upon by each DSP customer and MCI.

D.7 Federal Universal Service Fund Charges (FUSF)

Federal Universal Service Fund charges to VITA or to DSP customers will not exceed the Universal Service contribution factor established by the Federal Communications Commission. The factor will only be applied to interstate and international telecommunications charges to calculate the amount of the FUSF charges billed to VITA and to DSP customers.

The charges to which the FUSF charge will be applied are:

- Interstate voice and interstate switched data long distance usage
- Carrier Access Charge (CAC)
- International voice long distance usage (originated within the United States)
- Interstate data circuits (primarily public data network services)
- Miscellaneous Monthly recurring fees and one time/installation fees
    - Interstate Data and Voice Circuit Expedite Fees
    - Interstate Data and Voice Circuit Installation Fees
    - Public Internet Data Circuits (UUNET Direct)
    - VSAT Internet Access Circuits
    - T-1 Voice Access Recurring Charges (PRI's) (without proration)
    - Interstate Directory Assistance Calls
    - 800 Trunk and Business Line Fees
    - Interstate Payphone Surcharges
    - Direct termination overflow – Install/Change Per Table
    - Percentage allocation routing – Install/Change
    - Point of call routing – Install/change
    - Tailored call coverage – Install/change
    - Holiday Routing – Install/Change (per Number)
    - Time of day/day of week – Install/change (per Number)
    - Dialed number identification – Install/change (per Trunk)
    - Supplemental Codes/ID Codes (Per Block of 100)
    - Toll Free reporting (per Two users)

MCI agrees to provide the necessary credits to VITA on the Enhanced Call Routing and voice portal platform billings to offset any FUSF charges that may appear on those bills.

Attachment E
Network Management Services

E.1 General

MCI will operate the VNOC, jointly located at VITA's Operations Center and MCI's Richmond Operations Center. MCI will staff the VNOC with personnel specifically assigned to support the Commonwealth. The center will operate from 6:00 AM to 12 AM Monday through Friday and 8 AM to 5 PM on Saturday except for official Commonwealth holidays. In addition, MCI has a team of Field Operation Technicians that maintain the MCI network and infrastructure in Virginia. This team is also based in the Richmond Operations Center as well as other MCI terminals in Virginia, which allows very tight integration between COVANET and the rest of the MCI network.

MCI Network Management Centers (NMCs) proactively monitor network performance 24 hours a day, 365 days a year. NMC monitoring reduces the number of major outages because service degradations are caught in the developmental stages, often before customers are aware of any problem. The NMCs also play a major role in network restoration efforts since NMC engineers institute the preplanned real-time restoration efforts. They also dispatch personnel to areas where repairs are necessary, and initiate return-to-normal activities when the network has been repaired.

The VNOC will provide a seamless configuration management process for Data Services order entry and provisioning services.

E.2 Trouble Reporting Process

Trouble Flow Process for the VNOC

If the customer notifies VITA of a problem on a data circuit, VITA will contact the VNOC to open a trouble ticket. If the VNOC engineer or the end user opens a trouble ticket for a data circuit, the VNOC engineer will inform VITA's NCC of the trouble ticket. In all circumstances the trouble resolution process will be the same as shown below.

- The VNOC engineer will make an initial assessment of the problem and generate a local trouble ticket.
- Initial diagnostic testing will be accomplished at that time. The VNOC engineer will work closely with the individual reporting the trouble to determine the next steps in trouble resolution process.
- The VNOC engineer will take all steps possible to resolve problem locally and restore service.

- If it is determined that the problem cannot be solved locally within the first fifteen minutes, the VNOC engineer will open a trouble ticket with MCI's Technical Service Center.
- During the trouble resolution process the VNOC engineer will take all appropriate steps; monitor activities, direct troubleshooting, escalate, etc.
- The VNOC will have ownership and responsibility for that trouble ticket until it is resolved.
- MCI agrees to open a trouble ticket with MCI's Technical Service Center within 15 minutes of the NCC report of the problem.

Each trouble ticket will be assigned a priority level of 1, 2, 3, or 4 based on the severity of the reported problem. The priority levels and pre-defined escalation intervals are described below:

Table E.2 Service Priority Levels

Priority Level	Actions
Priority 1	Repair Time Objective is four hours Categories of Priority 1 tickets: • Customer is unable to use the circuit and has released the circuit for immediate testing. • Circuit is inoperable. • Circuit is experiencing intermittent failures. • Circuit has high error rate. • Any dedicated access location having 5 or more circuits out of service, or having lost 50% or more of its service. • Customer cannot make or receive international calls. • Customer cannot make or receive calls to or from a single or multiple NPA NXX, City Code, Country Code, or ONNET location. • Any switched access customer location having lost 50% or more of its service. • Any customer unable to transact business due to 800 or ONNET Service problems. Priority 1 tickets will be escalated every hour.
Priority 2	Repair Time Objective is eight hours Categories of Priority 2 tickets: • Trouble Tickets are assigned when the service is

Priority Level	Actions
	operable but experiencing sporadic quality problems; • Any account location with less than 5 circuits or less than 50% of total service out of service. • Consistent problems as identified by Technical Service Center or CSC on voice circuits/products. • Switch access problems, connectivity only • Dial-up data/Fax quality or connectivity service inquiries. Priority 2 tickets will be escalated every 4 hours.
Priority 3	Repair Time Objective is 24 hours Customer Service Inquiries are single incident non-circuit-specific quality service inquiries or connectivity service inquiries. Priority 3 tickets will be escalated every ten hours (business hours only 8:00 am to 6:00 pm local time). Priority 3 Service Inquiries will not be status'ed or escalated on MCI holidays or during weekends.
Priority 4	Repair Time Objective is 72 hours Customer Service Inquiries are also known as Information Service Inquiries. They are invoked when a circuit took a hit or outage has occurred and the customer is requesting a reason for outage (research only, circuit is up and running).

Trouble Ticket Historical Reports

MCI will track trouble tickets and provide monthly reports to VITA about the number of trouble tickets, details on any extended outages, trouble tickets that did not meet the Service Level Agreements. These reports are available for all MCI services and will be made available on the COVANET Web site.

VNOC Diagnostic Tools

The VNOC is equipped with monitoring capability that provides audible and visual indications of potential problems within the network. When these indications arise, the MCI VNOC will use all available diagnostic tools and other MCI systems to isolate the source of the problem. MCI will provide fault management on the entire network up to the customer's serial interface on the router.

Proactive Notification/Alarm Sharing

MCI will proactively notify the VITA NCC of circuit status changes in the COVANET network. In addition, the MCI VNOC will forward real-time network alarm

conditions electronically to the VITA NCC. Proactive notification and alarm forwarding will be provided via Lucent Technologies Fault server. By utilizing a windows browser based client, the VITA NCC will be able to receive and monitor proactive messages and alarm conditions in the network. In addition, the Fault Server client will easily allow the NCC to determine the precise time a circuit failed and what time the circuit was restored.

Technical Service Center Trouble Reporting Procedures

MCI will provide a single point of contact for trouble management support for data services during the hours the VNOC is staffed. VITA will be able to open trouble tickets directly by dialing the VNOC at 804-648-7031 or 804-527-1241. Trouble reports for voice services and for times the VNOC is not staffed will be called in directly to MCI's Technical Service Center (TSC) at 877-624-1210. The following procedures and processes are for tickets that are opened with MCI's TSC:

- Centralized trouble reporting for all services
- Problem isolation and correction
- Cooperative trouble isolation between MCI, VITA, other providers, and the end user
- Recorded audit trails of trouble resolution activities
- Responses to inquiries about trouble resolution status
- Trend analysis, trouble report sorting, and administrative reporting
- Problem escalation procedures for normal and emergency events
- Trouble report management and escalation procedure monitoring

Each trouble ticket will be assigned a priority level of 1, 2, 3, or 4 based on the severity of the reported problem. The priority levels and pre-defined escalation intervals are described further in Attachment H.3.

Distributed Network Management

MCI will provide real-time network monitoring functions to VITA and authorized staff with Lucent's™ Customer Network Management Gateway. CNM enables customers to view utilization, configuration, and operational statistics for circuits connected to the ATM/Frame Relay network. By providing a 'window' into the network management platform used by VNOC personnel, customers utilizing the CNM client have access to the same real-time statistics used by VNOC engineers to configure and troubleshoot the network. There is a monthly cost for this service.

E.3 High Performance Digital Data Network (DDN)

The DDN is a sub-network of MCI's domestic network developed to meet the high performance and reliability requirements necessary for the Commonwealth's data

transmission. MCI will focus additional resources on the DDN and provide specialized design, testing, monitoring, control, and operations support practices tailored to meet stringent performance and reliability objectives.

DDN Maintenance Windows

Maintenance Windows and Network Grooming are designated within MCI as a Planned Service Work Period (PSWP). MCI will perform maintenance on the network on an on-going basis. MCI will notify VITA of a PSWP seven calendar days prior to the planned event by contacting the VITA Customer Service Center and the VITA end user via fax and telephone. If an emergency or unplanned service work period is required, MCI will make every effort to provide as much advance notice as possible. Scheduled windows occur every month on approximately the third week of the month. These scheduled events are referred to as a MCI Digital Data Network (DDN) Window.

MCI provides maximum redundancy and survivability in the event of a disaster. In preparation for such an event, MCI's maintenance centers are designed for maximum reliability. At every location, MCI's centers are protected by diverse, dual-fed uninterruptible power sources (UPS); diverse SONET (OC-48) fiber feeds; and 7x24x365 security coverage. Each of the Network Management Centers is capable of providing total fallback capability for the other center. Many of the MCI terminal facilities in Virginia are equipped with generator backup equipment in the event of failure of commercial power. Sites without a backup generator are equipped to connect to an external mobile generator. The terminal converts the AC power to 48 volts DC. All site communications equipment operates on 48 Volts and is equipped with battery banks. In the event a site loses AC power it will operate for an extended period on site batteries. MCI's site that is utilized to connect COVANET to SunGard's national network will operate for 10.5 hours on its battery bank after the loss of commercial power. If any site loses commercial power a generator will be deployed immediately to ensure continuous operation of the facility.

VNOC Engineering Services

The Virginia Network Operations Center is the single organization that can be contacted by the Commonwealth for support on data services. MCI engineers will support the end user whether it is directly related to the private network or a public service that has been subscribed to by the Commonwealth. They will act as an interface to MCI corporate network management organizations to answer questions or resolve technical issues related to those public service offerings.

In the subsequent list, MCI presents the scope of the responsibilities and functions for Data Services:

- Provide a seamless configuration management process for COVANET order entry and provisioning.
- Review order for completeness.

- Interface with MCI engineering groups for customer support.
- Assign project implementation manager if required.
- Meet with customer to plan, review, and discuss their implementation as requested.
- Track orders within the MCI systems.
- Resolve customer related issues and answer questions on orders via Email or by phone.
- Coordinate and assist in resolving local loop issues.
- Coordinate and assist in resolving MCI network issues.
- Maintain database with all related service order information.
- Test and acceptance of local loop.
- Coordinate with customer, vendors, and VITA all cutover activity.
- Single point of contact for VITA to report problems with data services.
- Notify VITA's NCC on any customer reported trouble.
- Perform initial fault isolation procedures.
- Use local diagnostic tools for quick trouble resolution.
- Open trouble tickets with MCI Service Center if problem cannot be corrected locally.
- Coordinate resolution of the trouble ticket and escalate at designated time intervals.
- Track all activity on trouble tickets until closure.
- Status customer/VITA on progress of trouble resolution.
- Maintain list of all open trouble tickets.
- Maintain historical trouble history, made available on COVANET Web Site.
- Provide Post Mortem to VITA or Customer on unsatisfactory handled problem as requested.
- Meet with customers as requested on service related issues.
- Meet with customers for routine quality assurance reviews.

E.4 Network Capacity Management

COVANET is designed around an OC-12c backbone that has more than sufficient capacity for the existing traffic on the Commonwealth networks. MCI will proactively monitor the capacity of the core as COVANET grows to ensure capacity never becomes an issue. MCI has established a SLA that guarantees that the backbone utilization will never exceed 65%, if that parameter is not met MCI will take the appropriate action

necessary to meet that standard. The VNOC collects and analyzes traffic statistics on each of the core trunks daily. The traffic statistics for each trunk are included in the reports made available to VITA through the web-based reporting system. The VNOC engineers will work with their corporate counterparts to resolve any MCI capacity issues that may have a negative impact on commercial products subscribed to by the Commonwealth.

E.5 Network and Facility Security Management

MCI will protect the customer information from unauthorized modification during transmission. MCI will protect its Data networks using MCI security and protection measures, and by employing data networking protocols, which support higher levels of error control and integrity checks. MCI's data networks are 100 percent digital, which provides higher levels of data integrity. The use of fiber facilities provides high assurance for the protection of Commonwealth data. MCI will employ the following security management protocols.

Personnel Security. MCI's personnel security program consists of an employee screening process, MCI's Security Awareness Program, and security investigation and enforcement procedures. MCI's personnel security process will ensure that its workforce meets high standards of trust and integrity to support its customers.

Physical Security. MCI will protect its most sensitive facilities from entry by unauthorized persons through the use of an employee identification system, guarded facilities, electronic locks on doors within MCI facilities, video surveillance cameras, and a company-wide information protection program that requires employees to challenge unfamiliar or un-badged personnel within MCI facilities.

Property Security. Property security involves protecting the perimeter of a MCI facility from unauthorized access. The definition of the perimeter varies from one site to another, based on the type of site, the location, and specific site requirements. The methods used to secure the perimeter include fences and gates, cameras and other monitoring devices or a combination thereof.

Building Security. Building security consists of protecting and securing the public interior space of MCI's buildings, including the first accessible interior space and the facility's perimeter. Methods used to secure MCI buildings include, but are not limited to:

- Card access readers installed at the main entry
- Tech On Site (TOS) Switch System with regional BEST locking hardware
- Card readers on internal doors
- Closed Circuit Television (CCTV) cameras installed to provide full coverage of all access controlled entrances
- Door position contacts installed on all non-access perimeter doors

- Door position contacts installed on all rolling overhead doors and roof hatches
- Glass break detectors installed on all ground floor glass panes.

Workspace Security. Workspace security consists of securing non-public space within the perimeter of a MCI facility. Methods used to secure these spaces include card access readers and security system programming that allows only MCI employees into the workspace area, and/or the use of BEST locking hardware.

High Security. High security consists of securing and protecting the sensitive space within a MCI facility. Sensitive space includes all of the space inside the perimeter of the MCI facility that limits access to specific, authorized personnel. The space may accommodate computer or communications equipment; legal, realty, and executive offices; customer program offices with access restricted to cleared personnel; and any other space that does not allow access by unauthorized personnel.

E.6 Training and Skill Transfer

MCI has always held the belief that education of our customers and staff is of utmost importance. MCI will continue to offer training to the Commonwealth. This is accomplished in several manners. MCI will ensure that as new products, technologies and features are introduced, that knowledge base is transferred to our customer and end user. This will be completed through a variety of means; MCI offers classroom style training, web based training, white papers and other types of documentation and or net conferencing. The method used will be determined by, both the intended audience and the subject matter.

MCI will leverage our Net Conferencing product to provide web-based training to large audiences without requiring extensive travel by state employees. In addition, the training can be made available via Net Replay to allow multiple shifts to attend the same training as schedules allow.

Training may be formal, where a specialist in that field is brought in and trains a large group at one time, or may be informal, such as when an account team member sits with an individual at VITA to show them how to better take advantage of a specific product, feature or reporting capability. MCI will customize and tailor the training to the specific audience from an executive level roll out, more technical for the engineers and fully hands on for a help desk organization. MCI's goal is to continue to ensure that the Commonwealth is as current on our product portfolio as the MCI account team.

E.7 Network Management Reports

MCI will continue to provide the Web based reports as it does today as shown in Table E.7, below. In addition to the reports the Commonwealth receives today MCI has made some significant additions that will give the Agency network manager's the ability to make quicker and better decisions concerning their networks. The new reports will include near real time reports and management summary reports shown in Table E.7.

These reports will be included in the reporting system that exists today and accessible through our Web Site. Allow 10 business days for initial delivery of new reports. The reports will be in two categories:

Real Time Reports - These reports will be similar to the existing next day utilization reports but these reports will be available on line with approximately a 30-minute delay. The reports will be for Frame Relay PVCs and ATM PVCs utilization and Internet Port utilization. This will give the Commonwealth the ability to review statistical information as it occurs, identifying suspicious activity and will provide assistance when resolving network issues.

Hot Spots – These management/summary reports will be a valuable tool in identifying areas that need attention. These are areas that may be causing performance issues or potential problem areas. This tool will also be valuable when projecting and forecasting growth in the network and to assist in design modification. There are threshold parameters for each of these reports; these thresholds can be altered to meet the needs of the specific agency. There will be several reports generated in this category; these reports will be available on the Web site. At VITA's option MCI will deliver the reports via Email.

- Top 5 (This number can be altered) busiest PVCs.
- Top 5 (This number can be altered) busiest logical ports.
- Sites that errors (Frame Relay errors/Dropped ATM cells) exceeded a specified threshold.

Table E.7– Reports Provided by MCI

Service/Function	Report Type	Daily	Weekly	Monthly	Available
Trunk					
	Trunk Utilization	X	X		
	Trunk Utilization by QoS	X			
Internet					
	Internet Port Utilization	X			
Frame Relay					
	PVC Utilization	X			
	PVC Latency	X			
	Lport Utilization	X	X	X	
	PVC Detail	X			
	Exception Reports				As Requested
ATM					
	PVC Utilization	X			
	Lport Utilization	X	X	X	
	PVC Detail	X			
	Exception Reports				As Requested

Service/Function	Report Type	Daily	Weekly	Monthly	Available
Other					
	Configuration				On Line
	Order Status				On Line
SLG/MTTR					
	Network Availability		X		
	Network Utilization		X		
	Monthly MTTR			X	
	Weekly Exception MTTR		X		
Hot Spots					
	Top 5 Busiest PVCs		X		
	Top 5 Logical Ports		X		
	Top Sites for Errors		X		
Real Time Report					
ATM	PVC Utilization				30 Minutes
	Lport Utilization				30 Minutes
Frame Relay	PVC Utilization				30 Minutes
	Lport Utilization				30 Minutes

Report Descriptions

End-to-End Network Availability Report - The End-to-End network availability is 99.2%. The availability report is a monthly report of the total number of minutes in the previous 3 month period during which a specific circuit is available to exchange data between the two COVANET end points.

Hot Spots Reports - These management/summary reports will be a valuable tool in identifying areas that need attention. These are areas that may be causing performance issues or spot potential problem areas. This tool will also be valuable when projecting and forecasting growth in the network and to assist in design modification. There are threshold parameters for each of these reports; these thresholds can be altered to meet the needs of the specific agency. The reports will be created upon request. There will be several reports generated in this category; these reports will be available on the Web site. MCI feel that these reports require high visibility; MCI can deliver these reports via E-mail.

Top 5 busiest PVCs Report - This number can be altered.

Top 5 busiest logical ports Report - This number can be altered.

Report on sites that errors exceeded a specified threshold – This report measures sites with excessive Frame Relay errors and dropped ATM cells.

Real Time Reports - These reports will be similar to the existing next day utilization reports today but these reports will be available on line with a 30-minute delay. The reports will be for Frame Relay PVCs, and ATM PVCs, and Logical Port utilization. This will give the Commonwealth the ability to review statistical information as it occurs, identifying suspicious activity and will provide assistance when resolving network problems.

Network Utilization - The utilization report will show an average percent of ATM traffic on the backbone network over a five-day period.

Internet Utilization - Internet utilization reports will graphically display ingress and egress utilization using 5-minute values for COVANET gateway connections. Each Internet gateway connection on the network will generate one graph per day. There are daily, weekly, and monthly graphs **Monthly MTTR** - The Monthly MTTR reports will graphically show by month, the average mean time to repair (MTTR) of all trouble tickets broken down by service type. Each report will show the 3 previous months. The report will be available by second week of the month.

Backbone Trunk Utilization- Backbone Trunk utilization reports will graphically display ingress and egress utilization using 5-minute peak values and 15-minute averages. Each trunk on the network will generate one graph per day. Historical data will be kept for 30 days.

Trunk Utilization by QoS - Utilization reports will show, in tabular format, the number and percentage of UBR, CBR, and VBR cells on the backbone. Each trunk on the network will generate one table per day. Historical data will be kept for 30 days.

Weekly Exception - The weekly exception report will show in a tabular report the trouble tickets that have exceeded 8 hours of outage time. The report will show the circuit id, the ticket number, a brief explanation of the resolution, and other fields. If more detailed information is requested about the outage, the report will also allow a web-based request to be generated for more information.

Configuration Report - Users will be able to access configuration information online via the COVANET web site. Users can view PVC information, circuit IDs, etc.

Order Status - User can view information as related to installation of services. This will include but not limited to Circuit ID, due date, Telco information, Service order number, Jeopardy information, etc.

Exception Reports - Exception reports can be custom designed to meet individual agency requirements. Criteria can be established to limit the amount of information the reports return. For example, an exception report can be designed from the PVC detail report to only show PVCs that have more than 35% amber frames over any 15-minute period. Exception reports can be based on any of the basic reports and can use any of the available fields of those reports for criteria. They can be displayed in a graphical or tabular format.

Initial delivery of Network Management Reporting system

Within 14 days after execution of the contract, MCI and VITA will meet and agree upon the specific reports identified in Section E.7 that will be required by VITA to be available via the Network Management reporting system. Within 60 days of the execution of the contract having developed and documented all required reports and web pages, MCI will make the system available for VITA's review and acceptance testing. Within 75 days from the execution of the contract, VITA will review and accept the system deliverables in writing or identify issues to MCI for resolution.

Beginning 90 days after the execution of this contract, monthly network management fees will not be payable until MCI has delivered the system and VITA has accepted it. For every day exceeding 90 days that the system is not completed and accepted, VITA will receive a pro-rated credit of one thirtieth of the monthly network management fee.

Ongoing Development of new Network Management Reports

VITA or its customers may from time to time request the creation of new report formats. MCI will develop the new reports within 10 business days of the request. If the reporting capability of the lucent platform changes, it may cause problems in the delivery of some reports. MCI will make every attempt to find an alternative solution. If an alternative cannot be found, the report(s) will be removed from the contract.

E.8 Performance Management – Service Level Agreements

E.8.1 General

This section describes the commitments on availability and maintainability made by MCI as well as the service level objectives and credits for missing service level objectives applicable to each of the following services provided by MCI:

- Private Line Services
- Switched Data Services
- Integrated Services Digital Network (ISDN)
- Frame Relay
- Asynchronous Transfer Mode (ATM)
- Internet
- Managed Virtual Private Network (VPN)
- Outbound Long Distance
- Inbound Toll Free
- Toll Free Interactive Voice Response
- T-1 Digital Gateway
- Intrusion Detection Services
- Network Management Reporting

E.8.2 Definitions

Except as noted the definitions and calculations in E.8 apply to all services.

E.8.2.1 Service Interruption

An interruption period begins when the NCC reports to MCI that the service has been interrupted and MCI opens a trouble ticket.

E.8.2.2 Network Outage

A Network Outage is defined as an unscheduled period in which the service is interrupted and not usable for 60 or more seconds within a 15-minute period, as measured by MCI. Network outages do not include periods of service degradation, such as slow data transmission.

E.8.2.3 End-to-End Circuit Access Types

There are three types of End-to-End circuit access types associated with Private Line, Switched Data, and Private Line Voice Services:

- On-net End-to-End Access circuits are those for which the local loop is furnished wholly via MCI or MCI-affiliate facilities.
- Off-net End-to-End Access circuits are those for which the local loop is furnished in part via MCI or MCI-affiliate facilities.
- Off-net End-to-End Access circuits are those for which the local loop is not furnished via MCI or MCI-affiliate facilities.

E.8.2.4 End-to-End Network Availability

End-to-End Network Availability is defined as the total number of minutes in the previous 3 month period during which a circuit is available to exchange data or voice between the two Customer end points, divided by the total number of minutes in the previous 3 month period.

End-to-End Network Availability is calculated after the Customer opens a Trouble Ticket with MCI and will be calculated on the availability for the MCI service monthly billing period in which the Customer opens the Trouble Ticket.

End-to-End Network Availability (%) = (Total minutes of circuit availability in previous 3 months) / (Total minutes in previous 3 months) * 100

E.8.2.5 Mean Time to Repair (MTTR)

Mean Time to Repair is defined as the average time to restore service for a circuit or other component during a Network Outage. Network outage measurement begins when MCI opens a trouble ticket.

MTTR is a monthly average of the time taken to repair all Trouble Tickets on a specific service, with the same severity level, during a Network Outage. The length of each Network Outage on a specific service is totaled at the end of each billing month and divided by the corresponding number of Network Outages for that service. This is calculated from Trouble Tickets opened during that billing month. MTTR per billing month is calculated for each service as follows:

Monthly Mean Time to Repair (Hrs.) = (Cumulative length of Network Outage(s) for a service) / (Total number of Trouble Tickets per billing month per service)

E.8.2.6 General Exclusions

No credit allowances are available in the following circumstances:

- Interruptions due to the failure of power, equipment, system, or services not provided by MCI.
- Interruptions during any period when the customer or user has released the service to MCI for maintenance or rearrangement purposes or for the implementation of a customer order.
- Interruptions during periods when the customer elects not to release the service for testing or repair and continues to use it on an impaired basis.
- Interruptions not reported to MCI.
- Non-completion of calls due to network busy conditions.
- MCI Maintenance windows

E.8.2.7 Service Interval - Service Level Agreements

For a list of Service Level Agreements in terms of elapsed business days allowed for all applicable service installations see Attachment C section C.4.1.

E.8.2.8 Specific Service Level Agreements by Service

The following are the SLAs for each of the Services.

Table E.8.2.8

Private Line Services SLAs

Service	MTTR
DS0, DS1, Fractional DS1 and Voice Grade Private Line (VGPL);	4 Hours
SONET DS3/STS1/ OC-3/OC-3c;	4 Hours
Metro Private Line Ethernet	4 Hours
Licensed Microwave Private Line	4 Hours

Switched Data Services SLAs

Service	MTTR
MCI network access	4 Hours

Integrated Services Digital Network (ISDN) SLAs

Service	MTTR
MCI network Access	4 hours

Frame Relay Services SLAs

Service	End-to-End Network Availability	MTTR	Transit Delay	Utilization
Frame Relay Access Availability Commitment	99.2%			
Digital data services		4 Hours		
Voice and DS0 services.		4 Hours		
Core Network			60ms	65%
Frame Relay			N/A	

ATM Services SLAs

Service	End-to-End Network Availability	MTTR	Transit Delay	Utilization
ATM Access Availability Commitment	99.2%			
Digital data services		4 Hours		
Voice and DS0 services.		4 Hours		
Core			60ms	65%
Local Loop			NA	NA

Dedicated Internet Services SLAs

For Internet connections through COVANET		
Service	**End-to-End Network Availability**	**MTTR**
COVANET Access Availability Commitment	99.2%	4 Hours

For connections directly to a UUNet hub:		
Service		**MTTR**
DS0, DS1, Fractional DS1		4 Hours
SONET DS3/STS1/ OC-3/OC-3c		4 Hours
DSL Internet*		4 Hours

Virtual Private Network (VPN) SLAs

Service	**End-to-End Network Availability**	**MTTR**
Access Availability Commitment	99.2	4 Hours
***Managed VPN services that utilize COVANET transport will be guaranteed the same level of availability as other COVANET products. There is no availability commitment for Managed VPN services not on COVANET.		

Outbound Long Distance SLAs

Service	**MTTR**
MCI Network Access	4 Hours

Inbound Toll Free SLAs

Service	**MTTR**
MCI Network Access	4 Hours

Toll Free Interactive Voice Response SLAs

Service	**MTTR**
MCI Network Access	4 Hours

T-1 Digital Gateway SLAs

Service	**MTTR**
T1 Access	4 Hours

Intrusion Detection Services SLAs

Service Measure	Service Level Agreement
General	
Maximum time to respond to customer inquiry	Not to exceed 15 minutes
MCI system availability	99.999%
Service provisioning	Not to exceed 30 days
ShadowGuard	
Incident Response & Risk Mitigation	Immediate
Notify client of incident	Not to exceed 15 minutes
Handle configuration changes	Not to exceed 30 minutes
Backup configuration files	Weekly & after each change
Restore configuration files	Not to exceed 3 hours
Apply necessary patches/fixes	Not to exceed 36 hours
Scan managed device for vulnerabilities	Weekly & mitigation of discovered vulnerability
Notify client of outage	Not to exceed 15 minutes
Log storage	Event data stored for one calendar month; Log data stored up to 1G per device online storage; Unlimited offline/archival storage
Reporting frequency	Daily
Reporting content	Custom
HW break/fix	Per Vendor Agreement

Intrusion Detection Services SLAs (Continued)

Service Measure	Service Level Agreement
Watch Services (SecureWatch & OverWatch)	
Incident Response & Risk Mitigation	Immediate
Notify client of incident	Not to exceed 15 minutes
Notify client of outage	Not to exceed 15 minutes
Log storage	Event data stored for one calendar month; Log data stored up to 1G per device online storage; Unlimited offline/archival storage
Reporting frequency	Daily
Reporting content	Custom

The Secure Data Agent (SDA) equipment used for ShadowGuard and Watch Services will be located on customer premises. Service level objectives for these services will be limited to factors under MCI direct control, including maintaining the availability and performance of the SDA assuming that it has adequate power and connectivity and that the equipment is made reasonably accessible to MCI and is not interfered with in any way.

Customer must purchase and maintain the highest level of vendor hardware maintenance agreement (also known as hardware break/fix) and vendor software subscription service on all hardware and software that will be subscribed to the MCI Intrusion Detection Service. If customer fails to maintain these maintenance contracts and subscriptions or fails to furnish appropriate information on these contracts to MCI in a timely fashion, MCI's obligations under the SLAs with regard to hardware break/fix and updating, patching and maintaining managed devices will be null and void.

All configuration change requests will be acknowledged within the time limit specified by the SLA above. If problems are anticipated, MCI will notify the customer of the issue within the SLA time limit, and will work with the customer to achieve a satisfactory resolution. In this case, notice to the customer within the SLA time limit will suffice as having met the SLA, regardless of the actual time required to rectify the problem and implement the change.

Network Management Reporting SLAs

1-Responsibility for Reporting on SLAs and Service Credits • MCI will maintain historical trouble history. • MCI will provide monthly reports on each service to VITA showing details on failures to meet the Service Level Agreements The reports will be available on the sixteenth of each month via the COVANET Web site. MCI will also provide a report that calculates any service credits due as a result of such failures and deliver the report electronically to VITA by the sixteenth day of each month.
2-Statistical Reports (non-SLA reports) will be available daily, weekly, and monthly on the COVANET Web site according to the following schedule: • Daily reports will be available on the Web site no later than 10 am on the following workday. • Weekly reports for the previous week will be available no later than 10 am on Monday. • Monthly reports for the previous month will be available no later than 10 am on the fourth of the month.
3-Reports for a new service or circuit will be set up when the service or circuit is provisioned concurrent with turning it over to the customer and will be available to VITA on the COVANET Web site.

E.9 Credits for Missing Service Level Agreements

E.9.1 Credits for Failure to Meet Service Interval Service Level Agreements

If MCI fails to meet an Installation SLA for a service listed in Attachment C section C.4.1 (except for Managed VPN and IDS), then 25% of MCI's Installation Charge billed will be credited to the VITA account.

If MCI fails to meet an Installation SLA for a Managed VPN Service installation within 30 days of receiving the equipment from either the customer or the vendor, then 25% of MCI's Installation Charge will be credited to the VITA account.

For Intrusion Detection Services, one free day of service will be given for missing the Installation SLA for provisioning the service.

E.9.2 Credits for Failure to Meet Service Level Agreements for MTTR

Except as noted, the credit for missing the service level objective for any applicable access service will be given as follows:

- When the dedicated inter-exchange line or lines and/or the access or termination line or lines associated with the service are interrupted for a minimum of four (4) hours to a maximum period of twenty-four hours, a credit allowance in an amount equal to one thirtieth of the monthly recurring charge or charges will be given.

- When the dedicated inter-exchange line or lines and/or the access or termination line or lines associated with the service are interrupted for a period of more than twenty-four hours, a credit allowance in an amount equal to one thirtieth of the monthly recurring charge or charges will be given for each twenty-four hour period.

E.9.3 Credits for Failing to Meet IDS Service Level Objectives

Credits for missing IDS Service Level Objectives equal one free day of service for each SLA missed, including the SLA for installation (provisioning). Documentation for missed SLAs must be provided by Commonwealth users of the service along with a request for any credits due. Credits must be requested in writing to MCI within 60 days of missing an SLA.

E.9.4 Credits for Failure to Meet Network Management Reporting Service Level Agreements

Credits for missing delivery schedule for critical SLA Reports

Beginning Ninety (90) days after the execution of this contract, MCI will be responsible for timely delivery of the SLA reports for MTTR as identified in Section E.8 above. For any month where SLA reports are not available online by the sixteenth day of the month or the credit report delivered to VITA by the sixteenth day of the month, MCI will credit VITA for five (5) percent of the total monthly recurring Network Management fee applicable for the previous month. If the SLA is missed for 3 consecutive months, MCI will credit VITA for ten (10) percent of the total monthly recurring Network Management fee applicable for the previous month

Credits for Statistical reporting system problems

Beginning 90 days after the execution of this contract, If VITA or one of its customers finds that statistical reports are not available on the website; VITA will open a Trouble Ticket with MCI. If MCI fails to remedy the situation within one week of the trouble report, MCI will credit VITA with two (2) percent of the total Monthly Management fee applicable for the month in which the problem occurred.

Some reporting system problems may result an unavoidable loss of reporting data for specific circuits or short periods of time (less than 48 hours). In such cases where minor loss of data is the only problem, a credit will not be available.

In no case in any single month where credits are due under Section E.9.4, will the maximum credit exceed ten (10) percent of the monthly network management fee.

Attachment F
Key Personnel

F.1 General

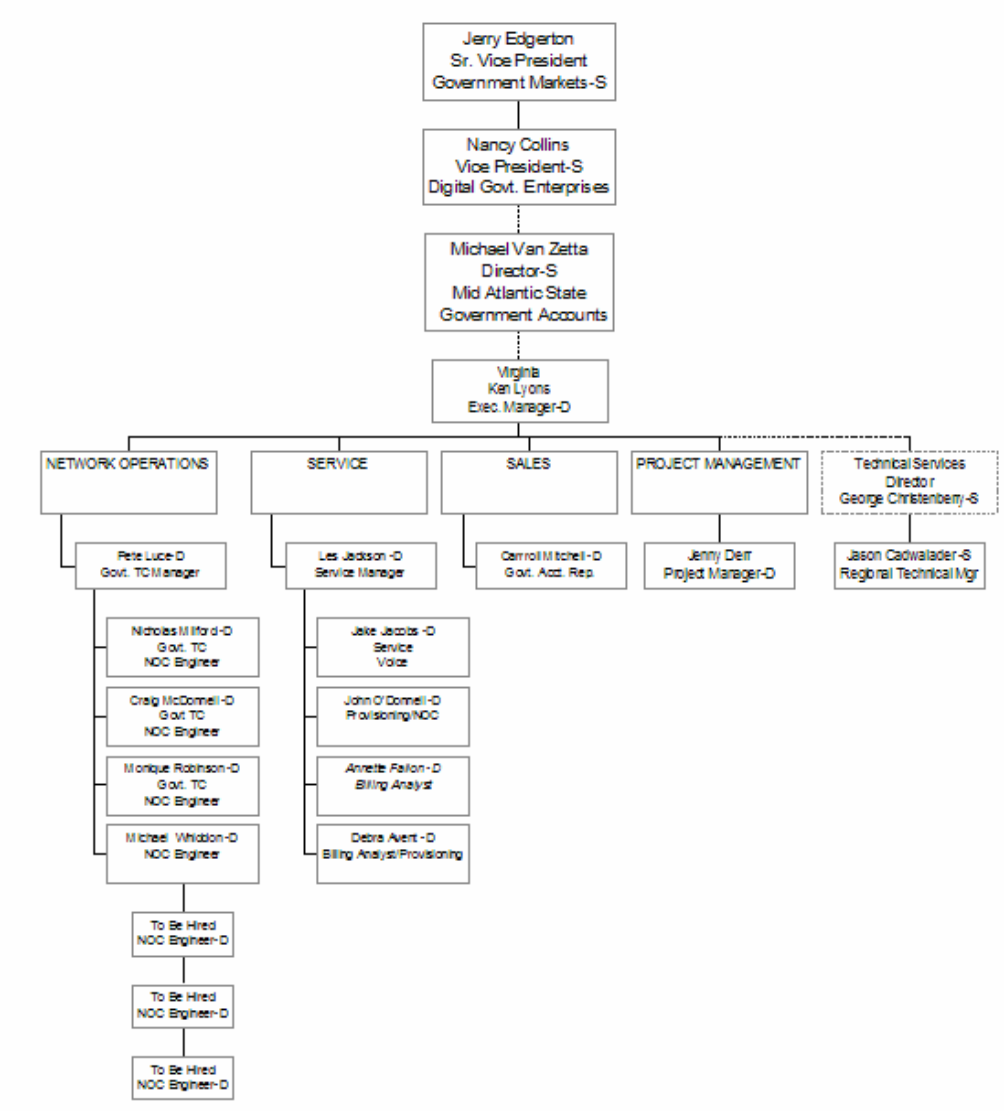
The COVANET contract shall be supported by MCI's COVANET Account Management Team (AMT) throughout the duration of the contract. The AMT will consist of dedicated and shared management, sales, service, support, and technical/Network Operations professionals committed to installing, marketing and maintaining the COVANET contract. This team is augmented by specialists who consult with the team in areas such as regulatory issues, new product offerings, contract issues and industry activities.

MCI will provide and maintain staffing levels necessary to perform all of its obligations under this contract. MCI agrees to not reduce staffing levels without VITA's written approval, which will not be unreasonably withheld. The staffing levels will be reviewed while taking into consideration, the levels of revenue and complexity of the network and determining network and determining if the number or mix of personnel needs to change to better serve the Commonwealth.

F.2 Account Management Organization

The table below represents the key personnel for the MCI Account Team. The MCI COVANET account team is located in Richmond at 4951 Lake Brook Drive Suite 200, Glen Allen, Virginia 23060. The contact numbers for the office are 1-800-777-3251 or 804-527-6300. This office serves as the point of contact for sales, ordering, configuration, installation oversight, and billing inquiries, additionally the account team maintains a Network Operations team at MCI's Richmond junction facility located at Old Francistown Road, Glen Allen, VA 23060, 804-527-1241. The MCI team also staffs a Network Operations Center at VITA. This site is manned by the MCI Network Operations Team and is available for trouble resolution and network questions in general. The lead government organization, MCI Government Markets, is located at 1946 Old Gallows Road, McLean, VA.

Organization Chart



Note: D= Dedicated Resource S=Shared Resource

Figure F-2. COVANET Account Team

The COVANET Account Team consists of integrated functions supported by experienced MCI staff and organizations already in place and supporting the Commonwealth of Virginia. The organization is built around Senior Account Team Managers (ATM) who are responsible for executing the program.

The account team flow of authority gives the ATM responsibility as: 1) the primary point-of-contact for technical and management issues among MCI, its subcontractors, and VITA; and 2) overall program management and supervision of MCI and team member resources assigned to the COVANET Account Team.

Table F.2 Account Team Manager Responsibilities

• Manages all aspects of the contract: technical performance, management, costs, terms and conditions. • Provides primary point of contact for VITA • Manages program budgets, cost control, scheduling, documentation, and administrative support • Leads risk and mitigation program • Serves as primary point of contact within MCI and with MCI teammates. • Participates in contract performance reviews • Manages day-to-day operations affecting the Account Team • Interfaces with customer service office managers, MCI chain of command, and VITA personnel • Ensures the technical quality of telecommunications and professional services and deliverables • Identifies trends and issues that may put the project at risk and escalates issues

This team will work directly with VITA to ensure ongoing customer satisfaction by providing products and services to meet its business needs.

The COVANET Account Team is dedicated to the Commonwealth from pre-sales planning through implementation and maintenance. The team works with VITA and its customers to understand requirements, implement services per the defined schedule, and provide ongoing customer support.

Both parties agree that VITA has the exclusive right to approve the level of expertise of Contractor's personnel assigned to the team, which approval of such personnel will not be unreasonably withheld.

In addition, both parties agree that the Commonwealth may notify Contractor when it finds any Contractor Personnel unacceptable for any lawful reason relating to the provision of Services herein, including but not limited to the Commonwealth's reasonable determination that he or she is not qualified to perform the work to which he or she is assigned.

Upon written receipt of such notice, Contractor shall within five (5) business days review the matter with the Commonwealth and unless otherwise agreed upon by the parties, promptly transfer or otherwise remove such Contractor's personnel from the provisioning of Services.

F.2.1 OPERATIONS AND DAY-TO-DAY MANAGEMENT

As outlined in the organizational display above and the functional area description, MCI has developed areas within the account team to support these functions: a Technical Support Team (pre-implementation and post-implementation support) to work with VITA and its customers in designing network and technical solutions and a Network Operations Center (NOC) Team that will augment the Technical team in ongoing network support, troubleshooting and efficiency recommendations.

Ordering and provisioning support will exist under the Service Manager. MCI has dedicated ordering and provisioning support employees who interface with VITA for ordering and provisioning. MCI has a centralized order hub organization that supports the COVANET team in ordering access circuits and provisioning network capacity.

The NOC team will provide the support to turn up and test the service and coordinate the turn up with VITA and its customers. These functions provide a complete set of resources to handle daily install projects.

Billing and charge back support will exist under the Service Management organization. MCI has dedicated billing personnel to interface directly with VITA billing support functions. This group will ensure timely receipt of invoices, billing accuracy and error correction functions for VITA

Database Circuit Inventory support will exist under the Network Management manager within the COVANET team. This dedicated function will be supported by the NOC personnel and will maintain a complete data circuit inventory of all circuits within the COVANET network. It will maintain a series of data elements such as circuit ID, Telco ID, agency name, address, speed, PVC information and the like.

Network management support will reside under the Network Management manager area and its dedicated staff to support the overall network for VITA. This group will provide trouble ticket resolution, network upgrades, circuit activations, reporting.

Project Management will oversee all large or critical projects and will coordinate all relative parties, to include VITA, MCI Operations personnel, agency contacts and any sub contractors or equipment vendors. Project Manager will track all orders, critical dates and project issues and communicate these items in a timely fashion to the entire project team.

F.2.2 FUNCTIONAL AREAS

The Account Team functional areas are:

- Manager
- Sales
- Billing

- Customer Service
- Provisioning and Ordering
- Project Management
- Technical Support
- Engineering
- Network Management

F.2.3 POSITION DESCRIPTIONS

Table F.2.3 COVANET Positions and Job Descriptions

Position Title	Position Tasks
Account Team Manager • Michael Van Zetta Executive Director • Kenneth P. Lyons Executive Manager	Has overall responsibility for contract compliance, program management, and deliverables Is the principal point of contact for, and has oversight of, quality assurance Secures and manages all required MCI resources Oversees all personnel assigned to project Develops, supervises and maintains project objectives and schedules
Account Sales Executives • Carroll Mitchell	Marketing interface with VITA and governmental departments Responsible for assisting VITA with requirements identification and analysis Interacts directly with VITA customers as required Markets to non VITA government entities Maintains day to day correspondence with VITA and VITA's customers Identifies and develops market demand information for new product development
Billing Analyst/Service • Annette Fallon • Debra Avent	Provides monthly and ongoing billing and reconciliation support services to VITA Responsible for processing credits, rendering billing, billing project management Interfaces with VITA customers, as necessary including DSP's
Customer Service Manager	Administers service ordering process and procedures

Position Title	Position Tasks
• Les Jackson	Monitors and tracks orders Oversees trouble handling, escalation, and reports Provides status information to customers and Account Team manager Conducts regular meetings with VITA to review customer service performance Responsible for overall billing and reconciliation process
Provisioning/Order Analyst • Jake Jacobs • John O' Donnell	Responsible for overall order management and flow Provides weekly reporting on order status Works with NOC and internal MCI order provisioning groups to ensure timely turn ups Escalates telco due date issues as necessary
Technical Support Services • Pete Luce • Monique Robinson • David Williams • Craig McDonnell • Nick Milford • Michael Whiddon • Open • Open • Open	Coordinates network plan design and design with VITA, and keeps VITA informed of new and emerging technologies Interfaces with VITA customers to support account executive sales efforts and develops solutions for customers Participates in customer marketing efforts as required Maintains 7x24 NOC coverage
VNOC Engineer • Craig McDonnell • David Williams • Michael Whiddon • Monique Robinson • Nick Milford	Provides for trouble ticket management Overall network performance and management of switching infrastructure Coordinates and performs customer circuit turn ups Performs network trouble shooting and resolution Provides day to day consultative solutions and information to VITA customers Performs network upgrades as required

Position Title	Position Tasks
Network Management Manager • Pete Luce	Provides day-to-day and ongoing operational and engineering support (including configuration management, inventory management, and control, maintenance, and system training) Supports installation, testing, and acceptance activities Overall responsibility of network performance and adherence to SLA levels
Project Management	Provides day to day and overall management of large network Installation project, ensuring overall success and timeliness of such projects

F.2.4 NAMES AND TITLES OF STAFF

Account Managers

Michael Van Zetta Executive Director Office: (703) 918-6802 Cell: (703) 585-8088 Michael.Van_Zetta@mci.com	**Kenneth Lyons** Executive Manager. office: 804-527-6365 Cell: (804) 339-3630 Kenneth.P.Lyons@mci.com
Carroll Mitchell Government Account Mgr. office: 804-527-6325 pager: 800-759-8888 pin 8955265 Carroll.Mitchell@mci.com	

COVANET Service Group

Les Jackson Service Manager office: 804-527-6772 pager*: 1-800-724-3624 + pin 91514 Les.Jackson@mci.com	Jake Jacobs Support Consultant office: 804-527-6380 pager*: 1-888-900-2083 Jake.Jacobs@mci.com

Debbie Avent Service Consultant Office: (804) 527-6765 Debra.Avent@mci.com	Annette Fallon Billing Analyst Office: (804) 527-6388 C-Annette.Fallon@mci.com
John O'Donnell Support Consultant office: 804-527-6301 pager*: 1-800-724-3624 + pin 1421427 pager John.Odonnell@mci.com	

COVANET Network Engineers

Pete Luce Technical Manager office: 804-527-6337 pager*: 1-800-724-3624 + pin 8111203 Pete.Luce@mci.com	Monique Robinson Technical Consultant office: 804-648-7027 pager*: 1-800-724-3624 + pin 1687950 pager Monique.Robinson@wcom.com
David Williams Technical Consultant office: 804-648-7101 pager*: 1-800-724-3624 + pin 1926293 pager David.l.Williams@mci.com	Craig McDonnell Technical Consultant office: 804-527-1260 pager*: 1-800-724-3624 + pin 1922360 pager Craig.McDonnell@mci.com
Michael Whiddon Technical Consultant Office: 804-527-1242 Pager: 1-800-724-3624 + Pin 1725817 pager c-Michael.Whiddon@mci.com	Nick Milford Technical Consultant office: 804-527-1241 pager*: 1-800-724-3624 + pin 1924445 pager Nicholas.Milford@mci.com

COVANET Project Management

Jenny Derr Program Manager Office: (804) 527-6343 Cell: (804) 363-4789 Jennifer.Derr@mci.com	

Attachment G
Direct Service Plan

G.1 General

The intent of the Direct Service Plan (DSP) is to allow qualified COV entities to use COVANET in a flexible distributed fashion without compromising VITA's role and responsibility for ensuring effective and efficient use of COV telecommunications resources. In allowing COV entities to participate in the DSP, VITA does not relinquish or otherwise diminish its statutory authority to approve, authorize, or manage the procurement of telecommunications goods and services by the COV. Services offered as part of the DSP are in no way to be construed or represented as a separate contracting arrangement between MCI and the DSP participant. Unless explicitly noted in this Attachment, all terms and conditions of the Agreement will apply to services offered as part of the Direct Services Plan.

Under the plan, the MCI Account Management Team dedicated to VITA will provide the resources to extend VITA COVANET services to a broader range of VITA customers. Implementation of the plan will require close coordination between VITA and its MCI Account Management Team.

The overall direction of the DSP will take place under VITA's guidance and control. VITA will provide two key elements of the plan: 1) managerial oversight and direction, and 2) timely information regarding DSP participants including billing, provisioning and contact personnel. The MCI Account Management Organization assigned to VITA will have operational responsibility for the DSP participants.

VITA may qualify and grant specific agencies, institutions and other political subdivisions the authority to participate in this DSP. VITA will notify MCI in writing of qualified COV entities and their designated Ordering Officers. Generally, all customers participating in a local exchange carrier-provided Centrex DSP offered by VITA will be eligible to participate in the DSP offered under this contract. Other customers not participating in a local exchange carrier-provided Centrex DSP offered by VITA will be eligible to participate in this DSP if they maintain a average of 50,000 minutes long distance usage each month.

As a condition for participating in this DSP, each customer agrees to:

- accept consolidated invoicing for each MCI voice product or service that it uses
- document all of its requests in writing to install or delete telephone numbers, accounts, or services in a format acceptable to MCI (the MCI Account Team can not be held responsible for any services provided that it did not order directly) and

- timely notification to the MCI Account Team of any billing discrepancies or withholdings via e-mail each month

Before initiating the DSP participation, the customer and MCI will reach mutual agreement on the specific manner and timing of the ordering of DSP services under this contract and the notification to MCI of any billing discrepancies identified or short-payments made by the customer

In granting a COV entity authority to participate in the DSP, VITA may grant full or partial access to all COVANET service types (e.g. a COV entity may be given DSP access to voice services but not data services). Furthermore, VITA may specify certain standards that service configurations must adhere to (e.g. use of a COV specific dialing plan for On-net, calling card specifications).

VITA, at its sole discretion, may partially or entirely revoke or otherwise suspend any COV entity participation in the DSP. The suspension or termination of ordering privileges will be considered effective once MCI receives written notice of such action. Direct billing for COVANET services may continue unless otherwise revoked. VITA will give MCI sixty (60) days advance written notice of any complete suspension or termination of DSP participation. During this period, VITA and MCI will take appropriate action to transfer ordering and billing functions back to VITA.

VITA, at its sole discretion, may at any time cancel the DSP in whole or part. MCI will be given sixty (60) days advance written notice of any cancellation of the DSP. DSP ordering capabilities may be canceled effective with MCI's receipt of the written notice. During the sixty (60) day notification period, VITA and MCI will take appropriate action to transfer ordering and billing functions back to VITA.

The VITA CIO or a designee will be the only COV officials authorized to initiate or suspend any COV entity's participation in the DSP.

In granting COV entities access to the DSP, VITA is not authorizing DSP participants to modify any portion of the Agreement or to negotiate or establish separate unauthorized contracts with MCI.

The provision of Network Services on an end-to-end basis as described in Attachment F, Implementation Plan, and Attachment E, Network Management, will be applied to DSP participants as identified by VITA and by mutual agreement between MCI and VITA.

G.2 Operational Requirements

MCI will only accept DSP service orders from DSP Ordering Officers authorized by VITA. VITA has the right to establish separate management fees for each service category. MCI will bill DSP participants COVANET rates and charges, as specified in Attachment B, plus VITA management fees, as specified in writing by VITA. VITA will

give MCI 90 days advance written notification of modification to any management fee structure.

Magnetic tape containing call detail records will be available for all On-net DSP participants. On an ongoing basis, VITA will receive paper summary invoices as well as magnetic tapes including call detail records for each DSP participant.

MCI may not offer COVANET contract rates through the DSP absent the specified VITA management fees. MCI's 90 day back billing policy outlined in Attachment D, Billing Support Plan, will apply to MCI's ability to recover VITA management fees. VITA may recover directly from MCI in the form of a credit, any VITA management fees that MCI omits from the direct billing of DSP participants.

VITA will receive the accrued management fees as a credit to the VITA On-net invoice. MCI will provide a corresponding management fee report that documents the applied management fee by network service type.

VITA will receive all DSP management fee credits no later than the second VITA invoice after the corresponding DSP invoice date.

DSP participants will be directly invoiced by MCI and will have primary responsibility for payment of COVANET DSP invoices. MCI will perform its normal procedures for resolving billing disputes directly with the DSP participant. MCI may escalate to VITA as necessary for assistance in resolution to billing disputes and securing payment. Financial responsibility will lie with the entity to whom the Corporate and/or Billing ID is assigned or, in the case of DSP On-net customers, at the DSP participant level. To confirm the financial responsibility of DSP participants, VITA must receive written acceptance from authorized representatives of each DSP participant to this provision in its internal DSP agreement. VITA will provide a copy of this agreement to MCI as a part of VITA’s notification to MCI of authorized DSP participants.

On a quarterly basis, MCI will provide to VITA and each DSP participant an inventory of all DSP Data Private Line Service facilities in a hardcopy report.

G.3 Staffing

The MCI COVANET Account Management Team will assign one or more team members primary responsibility for interfacing with DSP participants. MCI will provide DSP participants the support they require without impacting the Team's primary function, which is to provide ongoing support to VITA and its user community.

Attachment H
Escalation Procedures

H.1 General

This Attachment defines procedures for the Commonwealth to escalate service and management issues. Section H.2 describes the procedures for escalating trouble tickets due to failure, service interruption, service degradation, etc. The administrative escalation procedures for billing, service orders, and other day-to-day issues are defined in Section H.2.

H.2 Administrative Escalations

If the Commonwealth fails to receive trouble ticket resolution to its satisfaction or needs to escalate any other service issue, e.g. billing, service orders, it may do so through the COVANET Escalation Points of Contact (POC). The contact information is provided below. The account team members may also be contacted through the COVANET Web Site, http://covanet.state.va.us/

Table H.1 COVANET Escalation Points of Contact

COVANET Account Team	
Jake Jacobs Voice Support Consultant	804-527-6380 Pager 1-888-900-2083
John O'Donnell Data Support Consultant	804-527-6301 Pager 1-800-724-3624 PIN 1421427
David Williams Technical Consultant- VNOC Issues	804-527-1260 Pager 1-800-724-3624 PIN 1926293
Pete Luce Technical Services Manager	804-527-6337 Pager 1-800-724-3624 PIN 8111203
Les Jackson Service Manager- Billing and Ordering Issues	804-527-6772 Pager 1-800-724-3624 PIN 91514
Ken Lyons Executive Manager	804-527-6365 Cell: 804-339-3630
Mike Van Zetta	703-585-8088
Nancy Collins, VP	703-343-6500
Jerry Edgerton, Sr. VP	703-343-6900

H.3 Trouble Ticket Escalations

The following defines escalation procedures for trouble reports and other service related issues. The MCI Network Operations Center (NOC) will serve as the first point of contact for all trouble resolution during staffed hours. As a default, during non-staffed hours, the Technical Service Center (Cary, North Carolina) will manage the trouble resolution process and drives domestic service issues on behalf of the Commonwealth and the COVANET Account Team. In the event a trouble ticket has been reported and repair time objectives are not being met, MCI has implemented an internal customer service escalation procedure. Five escalations are provided below. Each level should be given the opportunity to address concerns prior to contacting the next level of escalation.

- 1st Level – Team Lead
- 2nd Level - Manager
- 3rd Level – Senior Manager
- 4th Level – Director
- 5th Level – Vice President

Each trouble ticket will be assigned a priority level of 1, 2, 3, or 4 based on the severity of the reported problem. The priority levels and pre-defined escalation intervals are described below:

Table H.2 Service Priority Levels

Priority Level	Actions
Priority 1	• Repair Time Objective is four hours • Priority 1 tickets will be escalated every hour.
Priority 2	• Repair Time Objective is eight hours • Priority 2 tickets will be escalated every 4 hours.
Priority 3	• Repair Time Objective is 24 hours • Priority 3 tickets will be escalated every ten hours (business hours only 8:00 am to 6:00 pm local time). Priority 3 Service Inquiries will not be status'd or escalated on WorldCom holidays or during weekends.
Priority 4	• Repair Time Objective is 72 hours • Customer Service Inquiries are also known as Information Service Inquiries. They are invoked when a circuit took a hit or outage has occurred and the customer is requesting a reason for outage (research only, circuit is up and running). Not escalated.

H.4 MCI Interface with Other Providers

MCI also interfaces with local exchange carriers (for example, Verizon) for direct forwarding of trouble tickets. A process known as electronic bonding of trouble tickets from long distance carriers to LECs is utilized. These formal interfaces include predefined escalation schedules and points of contact so MCI is kept up to date on the status of restoration efforts and is therefore able to update the Commonwealth.

Attachment I
Internet Services

I.1 General

All use of the MCI IP Network and the Internet access services must comply with the Acceptable Use Policy ("Policy"), as contained herein. By mutual written agreement of the parties, the Policy may be amended from time to time; provided that (a) MCI shall submit to the Commonwealth in writing any proposed changes to the Policy; (b) the Commonwealth shall review and either approve or reject such proposed changes to the Policy within thirty (30) days ("Review Period"), whereby if the Commonwealth does not respond within the Review Period, the proposed changes to the Policy automatically shall become effective at the end of such Review Period; and (c) the Commonwealth shall not unreasonably withhold, condition, or delay its consent to any proposed changes to the Policy. In the event that the Commonwealth reasonably rejects a proposed change to the Policy, then the then-existing Policy shall remain in effect and the proposed changes shall be of no effect.

Immediately upon receiving notice or otherwise learning of a violation to the Policy, the Commonwealth shall, in full and complete cooperation with MCI, take all necessary and reasonable measures to remedy such violation and shall implement preventive measures to preclude future violations. MCI reserves the right to suspend service to any entity violating the Policy effective upon twenty (20) days written notice regarding such violation of the Policy; provided that service may be suspended without notice (a) in response to a court or government demand, or (b) if MCI determines that the integrity or normal operation of the MCI IP Network is in imminent risk. MCI shall resume service following a suspension made pursuant to this provision upon MCI's determination that the violation of the Policy has ceased and that preventive measures have been implemented by the Commonwealth to preclude future violations.

This Policy supplements but does not supercede the Contract. If a provision of the Contract contradicts this Policy, the contract provision governs. Notwithstanding the foregoing, if MCI must respond to a court or government demand or if MCI reasonably determines that the integrity or normal operation of the MCI IP Network is in imminent risk, MCI may immediately suspend service to violating entities, as outlined herein.

I.2 Acceptable Use Policy

The MCI IP Network may be used only for lawful purposes. Transmission, distribution or storage of any material in violation of any applicable law or Governmental regulation is prohibited. This includes, without limitation, material protected by copyright, trademark, trade secret or other intellectual property right used without proper authorization, and material that is obscene, defamatory, constitutes an illegal threat, or violates export control laws.

Violations of system or network security are prohibited. MCI will investigate incidents involving such violations and may involve and will cooperate with law enforcement if a criminal violation is suspected. Examples of system or network security violations include, without limitation, the following:

- Unauthorized access to or use of data, systems or networks, including any attempt to probe, scan or test the vulnerability of a system or network or to breach security or authentication measures without express authorization of the owner of the system or network.
- Unauthorized monitoring of data or traffic on any network or system without express authorization of the owner of the system or network.
- Interference with service to any user, host or network including, without limitation, mail-bombing, flooding, deliberate attempts to overload a system and broadcast attacks.
- Forging of any TCP-IP packet header or any part of the header information in an email or a newsgroup posting.

Sending unsolicited mail messages, including, without limitation, commercial advertising and informational announcements, is explicitly prohibited. A user shall not use another site's mail server to relay mail without the express permission of the site.

Posting the same or similar message to one or more newsgroups (excessive cross-posting or multiple-posting, also known as "SPAM") is explicitly prohibited.

Complaints regarding Illegal Use or System or Network Security issues should be sent to security@uu.net.

Complaints regarding email abuse should be sent to abuse-mail@uu.net.

Complaints regarding USENET abuse or SPAM should be sent to abuse-news@uu.net. For live incidents, please contact MCI Internet Abuse Investigations at 1-800-900-0241, option 2,3,1 twenty-four (24) hours a day.

I.3 Dedicated Internet Access Service

Section I.3 describes the additional provisions that apply to the installation and use of MCI's dedicated Internet access services.

I.3.1 Additional Provisions

1. Any Internet Protocol numbers ("IP Numbers") assigned to the Commonwealth by MCI in connection with the Internet service shall be used only in connection with the Internet service. In the event the Commonwealth discontinues use of an Internet service for any reason, or this Agreement expires or is terminated for any reason, the Commonwealth's right to use the IP Numbers shall terminate.

2. While the Commonwealth can resell Internet connectivity, the Commonwealth cannot resell the service in its entirety to another person or entity that is not authorized to procure Internet service under this Agreement without the express prior written consent of MCI. If the Commonwealth resells Internet connectivity to end users, the Commonwealth is responsible for: (i) providing the first point of contact for end user support inquiries; (ii) providing software fulfillment to end users; (iii) running its own primary and secondary domain name service ("DNS") for end users; (iv) registering end users' domain names; (v) using BGP routing to the MCI IP Network, if requested by MCI; (vi) collecting route additions and changes, and providing them to MCI; and (vii) registering with the appropriate agency all IP addresses provided by MCI to the Commonwealth that are allocated to end users.

3. Installation may be scheduled between the hours of 8 AM and 7 PM ET Monday through Friday (excluding holidays).

4. For T3 Shadow Service Only:

T3 Shadow service is available only if the Commonwealth orders primary UUdirect service from MCI. The term of Shadow service will be the same as the term of the Commonwealth's primary connection. Shadow service requires that the Shadow connection not exceed a 16 Kbps (T1) or 500 Kbps (T3) sustained use level (95^{th} percentile traffic sampling rate) while the primary connection is available. If the 16 Kbps/500 Kbps sustained use level is exceeded at any time while the primary connection is available, MCI will bill the Commonwealth an excess usage charge of MCI's Promotional Monthly Fee for Full T1/Full T3 service. The Commonwealth will be billed at these rates until the sustained use of the Shadow connection in a month decreases below 16 Kbps/500 Kbps. If the primary connection is unavailable (as defined in the SLA set forth at www.uu.net/terms), sustained use of the Shadow connection in excess of 16 Kbps/500 Kbps will not be subject to excess usage charges.

5. Commonwealth must provide sixty (60) days prior written notice to MCI before downgrading T3 service to a lower tier.

6. Descriptions of the domain name, mail, news services, and other network applications available in connection with this Internet service, and the pricing and additional terms applicable to these Internet services, are set forth in the Network Applications Fee Schedule available at www.uu.net/terms. MCI reserves the right to change the Network Applications Fee Schedule from time to time, effective upon posting of the changes to that URL or other notice to Commonwealth.

I.4 Dial Up Internet Services

Section I.4 describes the additional provisions that apply to the installation and use of the MCI UUdial Solo Internet access services. Those services which are described in more detail in Attachment A, including the following;

- **UUdial Solo (AlterDial**). Suitable for individual users, UUdial Solo connects a single laptop or desktop computer to the Internet.

I.4.1 Additional UUdial Solo Provisions

- MCI may suspend the service effective upon notice for a violation of these prohibitions as delineated in "I.1 and I.2".

- Included hours apply only to access via local MCI Points of Presence. Attachment
- B (Rates and Charges) contains all connect time charges if applicable.

- MCI offers two B channel ISDN connectivity and dual analog connectivity; however, both connections may not be linked during every session.

- Description of the domain name, mail, news services, and other network applications available in connection with this Internet service, and the pricing for these Internet services are set forth in Attachments A and B, respectively.

Attachment J
COVANET Private IP Services

J.1 General

MCI COVANET Private IP network is a hybrid network comprised of the vBNS+ (very-high-speed Backbone Network Service Plus) and the private COVANET Layer 2 ATM/Frame Relay access network. COVANET Private IP has the security and performance benefits of a private network with the value and economic benefits of a public infrastructure. The core of COVANET Private IP network is the fully redundant, high-speed IP core based on the vBNS+ nationwide network. The new core network will be an extension of the existing vBNS+ a high-performance, next-generation Internet. This network will enable the convergence of voice, data, and video.

The vBNS+ network is one of two backbone providers for the Internet2 community. Educational institutions and other qualifying organizations that are interested in access to Internet2 have the opportunity of using the vBNS+ network and its peering arrangement with Abilene, the other provider of backbone services for the Internet2.

J.2 Features

Network based-Virtual Private Network

The COVANET Private IP network based VPN service is based on the RFC 2547bis standard. This service is also known as PPVPN for Provider Provisioned VPN. End users receive a private routing table on the network that contains only their IP routes. The RFC defines the logical separation and security; this ensures layer 3 separation from other customers. As the routing table is maintained in the network, the customer router overhead may be minimized. Customer routes can be injected into the network via static routes or EBGP. The matrix below gives an example of the types of Layer 3 VPNs (Communities of Interest) that can be created:

Table J.1 Layer 3 Vans

State-Wide Intranet	Secure Any-to-Any connectivity between state agencies and the Internet
Agency Intranet	Secure Any-to-Any connectivity between an agency
Internet	Straight unfirewalled access to the Internet via the Internet Gateways

K-12 Internet	Access for K-12 users to the Internet with 'Traffic Shaping' and 'SOL Prioritization'
Video Conferencing	State-Wide Video Conferencing Network with QoS and Multicast Capabilities

Native IP Multicast

COVANET Private IP native IP multicast service is one of the advanced Intranet services offered by vBNS+. The multicast service seamlessly runs native IP multicast on multi-vendor platforms. The multicast service uses state of the art multicast protocols such as PIM-SM (Protocol Independent Multicast - Sparse Mode), MSDP (Multicast Source Discovery Protocol), Any-cast RP (Rendezvous Point), and MBGP (Multi-protocol Border Gateway Protocol). The multicast service enables customers to offer enhanced services such as delivering video services to the desktop.

Native Ipv6 Service

COVANET II IP provides IPv6 service through separate vBNS+ IPv6 routers. This service offers both native IPv6-over-ATM connections and tunneled IPv6-in-IPv4 connections. Native IPv6 connections for sites that already enjoy ATM connectivity for IPv4 are implemented by building new IPv6-router-to-IPv6-router PVCs in the existing Permanent Virtual Paths (PVP).

Security Management

The COVANET Private IP security management program draws its strength from the solid security foundation enforced on all MCI networks and systems. Specifically, the vBNS+ backbone architecture incorporates the following security disciplines and features:

- Denial of Service Protection
- User Data Confidentiality
- Identification and Authentication
- Access Controls
- Security Alarms and Audit Trails
- System and Data Integrity
- Personnel Security
- Physical Security

J.3 Access

Access to the COVANET Private IP network is available through standard Frame Relay or ATM PVCs. The PVC selection for Frame Relay and ATM is also available for IP PVCs. Frame Relay or ATM enterprise networks can co-exist on single access interface with IP PVCs, End users can have multiple IP PVCs on a single access depending on their precise requirements.

Attachment K
Service Ordering Guide

MCI agrees to develop within ninety (90) days after the execution of this contract by both parties a product/service guide for use by VITA engineers. The document will describe the services and their applications in detail and provide a guide to selecting and ordering service features. Once completed, MCI will provide training to VITA engineers in the specifics of each service and the requirements for selecting features for each service.

Attachment L
Enterprise Security Assurance Services

L.1 Service Description - MCI Enterprise

L.1.1 Product Summary

MCI Enterprise is a comprehensive security assurance and certification program that addresses all aspects of pro-active information security, from network and system analysis to physical and policy inspection. The program integrates multiple security practices and procedures to help VITA identify and mitigate risk to critical IT assets, and then assists VITA in maintaining an essential level of security "health" across its enterprise. Compliance with MCI's set of Essential Security Practices results in industry-recognized certification, providing VITA with confidence and assurance that its mission-critical e-business systems, networks, applications and physical environments are protected against all forms of threats.

L.1.1.1 Summary of Service Deliverables

Our MCI Enterprise program is a multi-faceted service consisting of critical analysis, assessment and security alert services, and includes the following:

- Risk Monitor and Security Alerts
- Live, Unlimited Analyst Access
- Perimeter Discovery Scans
- Perimeter and On-site Internal Risk Assessments
- Management and Technical Conference Calls
- Desktop Risk Assessments
- War Dials
- Enterprise Risk Manager (ERM) Web Console
- On-site Essential Practices Evaluation and Validation
- Certification Award
- Insurance Guarantee
- Emerging Risk Testing

L.1.1.2 Service Functionality

Perimeter Discovery Scans

MCI's Perimeter Discovery Scans will engage VITA in the basic tenet of Information Security design called "Default Deny," or "Principle of Least Privilege." This basic tenet provides the maximum amounts of protection by allowing the use of only specific services or network traffic required for business purposes. By setting a default deny baseline, MCI will enable VITA to focus both resources and energy in the proper areas. To accomplish this MCI will conduct a port scan of VITA's network in order to identify all Internet visible devices and services. It is not a vulnerability assessment, but an electronic sweep of address space that attempts to open connections to ports corresponding to known services on all hosts that comprise VITA's Internet perimeter.

In this analysis, MCI will scan the number and network Class type identified in this contract. Results are categorized into one of three groups. The value of this process is that it allows for the discovery, categorization, and elimination of at-risk hosts or services.

- **Expected Ports/Services** – "Expected" ports and services represent the ports and services that are typically required to conduct e-business. These include: ICMP, HTTP, HTTPS, DNS, SMTP, POP3, and IMAP.

- **Excessive Ports/Services** – "Excessive" ports and services represent those services that are "Expected," but available on a high number of Internet accessible machines - the greater the number, the greater the risk. Documented requirements should dictate the actual number of services required for business. Also easily corrected, the impact of "Excessive" services is dependent primarily on the requirements of VITA's business model.

- **Unexpected Ports/Services** – all ports and services not included in "Expected" or "Excessive" are considered "Unexpected." Unexpected services are considered the most vulnerable, yet simplest to correct with minimal operational impact. The goal should be zero unexpected services visible on the network perimeter.

MCI requires that all Excessive and Unexpected ports are either disabled, filtered, or documentation is provided justifying their business purposes.

These groups are used as the basis for the initial risk mitigation actions. At a minimum, at least three additional Perimeter Discovery Scans will be conducted over the course of the program (see *Perimeter Risk Assessments*). Initial results are forwarded with recommended actions in the Perimeter Discovery Scan Report.

Technical Conference Call

The Technical Conference Call following the first Perimeter Discovery Scan will serve three purposes: 1) Address open issues found during the discovery scan, 2) Gather both internal and external network topologies, 3) Enable the scheduling of the on-site visit by MCI's Security Analyst to begin the data collection and internal review processes. On-site visits and corresponding scans by MCI's Security Analysts will occur during business hours, 8 a.m. – 6 p.m. local time.

On-Site Internal Risk Assessment and Review

During this step of the MCI certification process, MCI's Security Analyst will conduct an on-site visit of VITA's facility and collect important asset data about the physical environment, such as personnel and physical security practices, backup power supply systems, cooling and ventilation systems, as well as documented policies and procedures.

The on-site data collection visit is used to extend the work already done in the Perimeter Discovery Scan. While on-site, the analyst will run a set of passive and/or active tools that will perform a network discovery sampling. This is geared as information gathering on an IP-based, Ethernet network within the contracted locations. The scans are conducted per location during business hours and will gather as much network data as possible. This may be accomplished via sampling rather than scanning every device. The goal is to capture and identify critical assets based upon several metrics: traffic activity, critical applications based upon visible services and critical devices based upon predefined assets. The Security Analyst also will use a custom application to gather general classification attributes about the environment, such as locations, network types, user population types, and key administrators. The information collected from this on-site visit is then uploaded to the Enterprise Risk Manager web console for data association and mapping to MCI's global risk research.

Also while on-site, the Security Analyst will conduct an internal risk assessment locally at the facility and from inside the perimeter using a set of commercial and proprietary scanning tools. This assessment is designed to uncover critical network vulnerabilities that often cannot be seen during the remote electronic scan, and provide valuable analysis of the IP traffic the network is experiencing. Mitigating the issues uncovered during this procedure is essential to achieving MCI Certification.

Enterprise Risk Manager *(ERM)*

Information gathered from the electronic and on-site physical assessments is maintained in the Enterprise Risk Manager (ERM), MCI's unique and secure web

console that enables VITA to track and manage the progress of the overall risk-management program. Contained within the ERM are two components: the ERM Profile Wizard and the ERM Console.

The ERM Profile Wizard is a feature that allows VITA to review the data MCI has loaded into the secured database and verify the findings. During this process, VITA also will need to input some additional information, such as defining the platform administrator for critical devices, etc. Information tracked in ERM includes the following:

- System and application administrators
- IP addresses of critical devices
- Modems and phone numbers associated with critical devices
- Platform and services running on critical devices
- The rooms in which the critical devices reside

The ERM Console is designed to provide an at-a-glance assessment of the critical devices. Each piece of information that is provided in the ERM Profile Wizard is tied into sophisticated back-end formulas that apply MCI's Essential Practices (or control recommendations) to critical people, places and devices within the environment. The ERM Console centralizes information about the critical devices, and includes information on how the Essential Practices apply, threat information, reporting information, and much more.

Perimeter Risk Assessments

As part of the Perimeter Risk Assessment, MCI will execute another Perimeter Discovery Scan to verify that VITA has completed implementing a "Default Deny" strategy. The Perimeter Risk Assessment is then intended to identify external electronic risks against the same contiguous address space, and is designed to assess the security posture as it relates to known external electronic threats. This assessment is run against the active hosts found during the discovery scan, and is used as a mechanism to assess compliance with MCI's Essential Practices. *This assessment typically is conducted Monday through Friday, between 9 a.m. – 5 p.m. EST, and will occur on pre-arranged dates.* These scans may include a combination of commercial and/or proprietary tools selected by MCI's Scanning Lab, and are also intended to identify system misconfigurations and/or out-of-date versions of software. The output of this assessment provides the MCI Security Analyst with the information necessary to spot possible risk areas and areas of potential non-compliance in VITA's network infrastructure.

These assessments also include an e-mail filtering test, which evaluates the effectiveness of your anti-virus response process. For this test, VITA will receive an e-mail message with a payload that VITA's network should respond to as *malicious*. The e-mails are neither invasive nor dangerous. This test, in conjunction with the output of the risk assessments, will

provide the MCI Security Analyst with key information about how well the perimeter security posture reacts to such threats.

Perimeter Risk Assessments (and their corresponding Perimeter Discovery Scans) are conducted as often as necessary during the pre-certification period, in order to position VITA's organization in a posture that is compliant with the Essential Practices. To ensure that VITA is continuously improving network security, MCI will perform additional scans following certification on a *quarterly* basis over the remainder of the contract period.

On-Site Essential Practices Examination and Validation

There are key elements of security practice that have been established as being requirements of doing business in a secure and responsible fashion. Implementation of backup regimens, malicious code protection, privacy policies, and application of current security patches are all examples of what we call 'Essential Practices.' While onsite, MCI's Security Analyst will evaluate VITA's compliance with MCI's Essential Practices. MCI's Essential Practices can be broken up into four categories: physical, device, network and human. Areas of coverage include:

- Inspection of the facility's physical perimeter
- Inspection of the data center's physical security
- Inspection of physical security of critical equipment
- Review of HVAC systems
- Inspection of power distribution and UPS systems
- Inspection of the hardened routers and/or firewalls
- Inspection of the configuration of a randomly selected critical web server
- Inspection of the configuration of the e-mail server
- Review of the Operational Management Policies and Procedures
- Inspection of Remote Administration Mechanisms.

As with the electronic assessment results, this information is collected and uploaded to the ERM for centralized management, data association and risk mapping.

Desktop Risk Assessment

The desktop is the primary entry point into the network for most of VITA's users. Proper desktop security settings are critical if internal security threats are to be mitigated. MCI uses a proprietary desktop assessment tool to examine target PCs' compliance to MCI Essential Practices. Primary areas of concern are: installation and currency of anti-virus software, use of password protected screen savers, modems, and various user-defined security settings. In order to reduce risk, the customer should have a policy that requires anti-virus software installed and running on at least 90% of all desktop computers at contracted locations. This proprietary tool is installed on Windows-based domain servers within the contracted locations, and assesses Win95, 98, NT, and 2000

operating systems upon log-in. Data is collected and uploaded to the ERM for analysis twice during the course of the contract, once prior to certification and once following certification. An additional desktop risk assessment during the certification program will ensure that the desktop environment stays healthy.

War Dial

The security analyst will perform two War Dial assessments per contract year on a maximum set of numbers, based on the scope of this contract. This procedure attempts to establish a connection to remote access servers or unregistered modems on the perimeter or behind the firewall, as well as searching for weak security points, such as common usernames and weak passwords. More specifically, the War Dial procedure attempts to connect to a defined range of phone numbers in sequential order, checking for responses such as modem carrier, fax tones, or voice mail. In so doing, MCI can recognize remote fax machines, phones answered by human beings, and phones that simply ring. The findings are then reported back to VITA in the following areas:

- Dialed Phone Numbers
- Discovered Fax Machines
- Discovered Modems
- Systems Penetrated
- Carrier Numbers Found
- Busy Numbers Found
- Tone Numbers Found
- Fax Numbers Found
- Incomplete Scan Areas
- Identified Systems with Modems
- Unidentified Carrier Numbers
- Responses from Penetrated Systems

Risk Monitor & Emergency Alert Service

MCI continuously monitors the Internet for emerging risks using proprietary tools and methodologies through its ICSA Risk Recon Team. This group of highly experienced and knowledgeable experts tracks known and underground sources for emerging issues that threaten computer security. The resulting information is presented in a secure, online, searchable database of updated security risks. Currently, the database contains over six years of collected information and approximately 2,000 entries. Additionally, as our Risk Recon Team discovers new threats deemed **"RED HOT," "HOT,"** or **"IMPORTANT,"** MCI will pro-actively notify VITA of these critical issues via MCI Security Alerts, which include recommendations for remedial actions. MCI can "push" to VITA targeted alert information via email, pager, phone, text, or voicemail.

Emerging Risk Testing

As a critical part of the MCI methodology, MCI will often perform ad hoc testing for newly discovered and/or severe problems. Typically, the severity of these problems on MCI's customer base is *remotely validated without prior knowledge.* These tests are not vulnerability scans, but remote assessments of your environment, based on our understanding of the newly discovered threat. This testing utilizes a proprietary tool, is non-invasive, and typically occurs between 8 a.m.-6 p.m. EST, usually *without notification.* Tests are run as soon as there is a practical means of detecting known issues. This enables both MCI and VITA to receive up-to-the-minute information about the environment on pertinent threats.

Certification Report

Following validation that the contracted locations have achieved compliance with the MCI Essential Practices, VITA will receive MCI Certification, providing VITA with confidence, assurance and a guarantee that VITA's mission-critical e-business systems, networks, applications and physical environments are protected against *cyber-threats* and other criminal breaches. Achieving this certification will enable VITA to display the "MCI Certified" seal, which is recognized worldwide as confirmation to VITA's partners, auditors and customers that VITA has made security a top priority. This seal can be displayed on marketing materials, as well as VITA web site as a validation of the achievement. The web site logo links back to MCI, providing the visitor with the Assessor's Report of Certification, as well as documentation about the process VITA followed to achieve certification.

L.1.2 Expert Services and Support

VITA will be assigned to one of MCI's professional security support teams. The MCI staff is experienced and trained in all aspects of information security, and holds a wide range of professional certifications. MCI's team is available to VITA for unlimited telephone support throughout the term of the contract. VITA also will have access to our specialized teams of InfoSec professionals in our ICSA Research Labs.

As an introduction to the program, VITA will be sent specific information regarding the analysts on your team, MCI customer support personnel, as well as information on how to access Customer Central, the MCI web portal, which will become VITA's primary access point for MCI delivered services. From there VITA will gain access to the MCI Enterprise Risk Manager, the Risk Monitor, which is MCI's on-line vulnerability database, our emergency security alert service, as well as other sections to help manage VITA's security assurance program.

Introductory Conference Call

MCI will conduct a conference call with VITA's team to further explain the MCI process. During this conference call, MCI will:

- Provide an overview of how the process works;
- Set expectations of information, documentation, and personnel MCI will need to gather information from, or interact with, throughout the process;
- Provide an overview of remote and local scanning methodologies;
- Request that VITA provide IP addresses and appropriate network diagrams of VITA's Internet interface and general network topologies;
- Schedule a date for the initial Perimeter Discovery Scan and the follow-up Technical Conference Call.

MCI Account Team

Because the MCI security assurance program is not considered a traditional consulting engagement, VITA is not assigned a *consultant*. MCI's Security Assurance Service is a dynamic and continuous process supported by the many security experts within MCI. As such, VITA will interact with a team consisting of members from two service groups, as well as MCI's ICSA Labs: Security Analysts – MCI's Security Analyst is VITA's primary technical contact. VITA's dedicated analyst will help improve the security posture by analyzing results from MCI's scans, authoring reports, validating essential practices, and providing feedback on VITA's current network architecture. Questions to MCI's Security Analyst commonly involve the following:

- Research Requests
- Scan Results
- MCI Methodology
- Essential Practice Requirements
- Certification Status

Project Managers – MCI's Project Manager is responsible for coordinating all aspects of the overall delivery process. MCI's Project Manager is available to answer questions regarding the following:

- User Account Maintenance
- Scan Scheduling
- Conference calls and onsite visit agendas
- Descriptions of deliverables
- Deliverable status
- Project status

ICSA Labs Product and Technology Experts – Should VITA have a security related question requiring additional research and knowledge to address, that question can be forwarded to MCI's experts in our Mechanicsburg, PA labs. These security professionals can also be available for conference calls and discussions surrounding pertinent issues or questions.

MCI Certification and Performance Guarantee

Successful compliance with current MCI Essential Practices results in MCI Certification of the network for the remainder of the contract period as well as activation of a MCI Insurance Guarantee. ***Completion of the MCI process leading up to Certification typically takes three to six months (see estimated timetable, next section).*** Certification includes the use of the MCI Certified Logo to demonstrate that VITA has taken the necessary steps to significantly reduce risk.

MCI is the industry's only comprehensive security assurance service backed by "hacker" insurance. Under this protection MCI customers are compensated if their certified site is breached as described below:

The MCI insurance privilege is applicable to any site which:

- Is currently MCI Certified through the MCI Corporation process (individual component certification does not apply);
- Has notified a MCI representative in writing within twelve (12) hours of discovery of the alleged incident;
- Has used all commercially reasonable efforts to recover in a timely fashion from any alleged incident;
- Has suffered and can show one of the following occurrences caused by a remote, unauthorized person or persons through the Internet, intentionally and specifically attacking the MCI Certified network, which results in one of the following incidents, for which there exists, at the time of the incident, a known defense:
- Loss of Internet e-mail services lasting more than two (2) business hours.
- Loss of other Internet related services lasting more than four (4) business hours.
- Public defacement of a web page (by hostile modification of publicly viewable HTML code) lasting more than two (2) business hours.
- An unauthorized, external person who gains root control, through the Internet, of a firewall or other MCI Certified system.
- Loss of Internet transactional system for more than one (1) business hour.
- Malicious alteration, damage, or destruction of sensitive or important data.
- Loss of information by malicious eavesdropping of an encrypted link or session (ex. VPN or SLL session).

MCI will pay the Customer $20,000 per incident, per certified server/site/system/network, up to the insurance limit. The insurance limit will be the lesser of $250,000 or twice the annual price paid for MCI 's MCI security assurance program for the certified server/site/system/network.

Summary of Electronic Assessments

SCAN	TYPE	LOCATION	SCOPE OF SCANS	SCAN OBJECTIVES
Perimeter Discovery Scans	Targeted Port Scans	Remote & Local	**Remote** – All Internet visible IP addresses within scope of contract **Local** - All key network segments on site, as well as 20% of remaining segments.	**Remote** - Identification of critical services & devices visible from the I*net, and collection of pertinent data about them. **Local** – Identification of services and devices from a locally visible perspective.
Perimeter Risk Assessments	Vulnerability Assessments	Remote	All Internet visible IP addresses within scope of contract.	Identification of critical vulnerabilities across perimeter networked segments from a "hacker's" perspective.
Internal Risk Assessments	Targeted Port Scans and Vulnerability Assessments	Local	All key network segments on site, as well as 20% of remaining segments assessed from behind the firewall.	Identification of critical vulnerabilities across enterprise networked segments, from an internal perspective.
Emerging Risk Assessments	Immediate Threat Evaluation	Remote	Entire customer-base network perimeter range.	Quickly determine devices vulnerable to a specific, rapidly emerging threat, for implementing immediate action.

L.1.3 Service Delivery Process and Timetable

*** NOTE:** The Timeframes represented below are **approximate,** and are intended to provide an idea as to the amount of time VITA might expect to complete the MCI security assurance program. These times are contingent on VITA meeting its responsibilities outlined in this Attachment, and will be adjusted throughout the certification process. Any **major** changes, however, will be coordinated between MCI Customer Services and VITA.

SERVICE	EST. TIME-FRAME	RESPONSIBILITIES	REPORT
Welcome Package	Week 1	**MCI will provide**: • Customer Services Team contact information • MCI Risk Monitor & Alerts access information • *Getting Started with MCI* CD-ROM • Desktop Risk Assessment Tool *(included on CD-ROM)* • SecurID Token/s for access to Customer Portal	N/A

SERVICE	EST. TIME-FRAME	RESPONSIBILITIES	REPORT
Initial Conference Call	Week 2	**MCI will:** • Explain process • Set expectations • Introduce Customer Services Team • Request required client contact list • Review scan methodologies • Request telephone number range/s for War Dial • Schedule Technical Conference Call	N/A
Initial Perimeter Discovery Scan	Week 3	**MCI will:** • Complete targeted port scan using appropriate tools • Upload data to the Enterprise Risk Manager (ERM) console **VITA will**: • Implement "Default Deny" strategy, per PDSR recommendations	Perimeter Discovery Scan Report (PDSR)
Technical Conference Call	Weeks 3-4	**MCI will:** • Review internal topologies • Review Technical Conference Call questionnaire • Assist Customer w/Default Deny implementation from PDSR **VITA will**: • Provide internal & network topologies • Ensure appropriate staff is available **MCI & Client together will**: • Determine best time for on-site Internal Risk Assessment and Review	
Internal Risk Assessment and Review (on site)	Weeks 5–6	**MCI will**: • Conduct interviews to identify and label critical assets • Run proprietary and commercial data collection and assessment tools • Collect policy documentation • Upload data to ERM console **VITA will:** • Provide network access • Answer interview questions	Internal Risk Assessment Report
Initial Perimeter Risk Assessment	Weeks 6–8	**MCI will**: • Validate ports & services identified in PDSR have been closed or mitigated prior to Perimeter Risk Assessment conducted • Complete Perimeter Risk Assessment using proprietary and commercial tools • Upload data to the ERM **VITA will:** • Mitigate vulnerabilities per MCI recommendations	Perimeter Risk Assessment Report

SERVICE	EST. TIME-FRAME	RESPONSIBILITIES	REPORT
Desktop Risk Assessment	Weeks 6-8	**MCI will**: • Collect data from Desktop Risk Assessment tool • Upload information to ERM **VITA will**: • Run tool to produce data	Desktop Risk Assessment Report
Enterprise Risk Manager (ERM) Web Console	Weeks 6–8	**VITA will**: • Complete ERM asset identification (Profile Wizard) process via the web	
Follow-up Perimeter Risk Assessment	Weeks 8-10	**MCI will**: • Complete second Perimeter Risk Assessment to verify vulnerabilities have been mitigated (Discovery Scan also conducted in conjunction with PRA) • Upload data to ERM	Continuing Perimeter Risk Assessment Report (2nd)
War Dial	Weeks 11–12	**MCI will**: • Complete pre-certification War Dial procedure • Upload data to ERM	War Dial Report
Mitigation of Open Issues	Weeks 12-20	**VITA will:** • Implement recommendations to comply with Essential Practices (control recommendations that are required for certification)	
Essential Practices Review and Evaluation (on site)	Weeks 20–24	**MCI will**: • Validate Essential Practices compliance (technical, physical, administrative) • Document non-compliant issues • Upload data to ERM **VITA will:** • Ensure the appropriate participants are available during the visit.	
Certification	Week 24 (target)	**MCI will**: • Award client with Certification document & plaque • Set up verification logo for web site posting and use in marketing materials • Report on synopsis of completed actions • Provide information on continuing process	Certification Report
Continuing Services	**Week 24-52**		
Continuing Perimeter Risk Assessment	Post Cert.	**MCI will**: • Complete Perimeter Risk Assessment (additional Discovery Scan to be conducted) • Upload data to ERM	Continuing Perimeter Risk Assessment Report (3rd)
Follow-up War Dial	Post Cert.	**MCI will**: • Complete follow-up War Dial procedure • Upload data to ERM	War Dial Report

SERVICE	EST. TIME-FRAME	RESPONSIBILITIES	REPORT
Follow-up Desktop Risk Assessment	Post Cert.	**MCI will**: • Collect data from Desktop Risk Assessment tool • Upload information to ERM **VITA will**: • Run tool to produce data	Desktop Risk Assessment Report
Continuing Perimeter Risk Assessment	Post Cert.	**MCI will**: • Complete Perimeter Risk Assessment (Discovery Scan conducted in conjunction) • Upload data to ERM	Continuing Perimeter Risk Assessment Report (4th)

L.2 Responsibilities

The objective of this service is for MCI to work with VITA to identify and mitigate risks to VITA's critical IT assets, then help VITA maintain an essential level of security health on an ongoing basis. The overall responsibilities of MCI and VITA are as follows:

MCI RESPONSIBILITIES

- MCI will support VITA in managing information security throughout the term of the contract.
- MCI will provide live security analyst coverage, Monday through Friday, 8 a.m. to 8 p.m. E.S.T., with no limitation to the number of hours of access.
- MCI will provide emergency hotline access 24x7x365 to assist with remote scanning and emergency issues.
- MCI will continuously improve its essential security practices to VITA's current on emerging security threats.
- MCI will protect VITA's data with security, privacy and confidentiality.

VITA RESPONSIBILITIES

- Assign the appropriate resources within VITA to work with the MCI Security Analyst Team throughout the term of the contract.
- Review and complete all requested documentation in a timely manner.
- Provide approval for the examination of any device hosted at a 3rd party.
- Understand that MCI will perform ad hoc testing on an ongoing basis and possibly without formal notification.
- VITA is responsible for implementing recommendations to comply with the MCI Essential Practices.

L.3 Service Performance Measurements

This section describes the specific performance metrics for each level of service, and lists the associated performance specification along with applicable customer remedies.

L.3.1 SLA Descriptions

Provided in this section is a detail explanation of MCI service level agreements, as well as the specific service metrics for each level of service (see table at the end of this section). The specific level of service for each device is listed in section 2 of this exhibit.

L.3.1.1 The MCI System

The MCI system is defined as MCI owned and controlled SOC systems resident on MCI premises, explicitly excluding any and all equipment residing on customer premises and services or equipment of any ISP, but including the SDA box located on customer premises; however, the SDA box and corresponding SLA shall be limited to factors under MCI direct control, including maintaining the availability and performance of the SDA assuming it has adequate power, connectivity, the equipment is made reasonably accessible to field personnel as may, from time to time be warranted, and is not interfered with in any way.

L.3.1.2 System Availability Commitment Scope

System availability is measured based on uptime/downtime during complete customer billing cycle. Unavailability shall not be deemed to occur as a result of maintenance activities; acts or omissions of Customer or its agents; lack of connectivity due to denial of service attacks; failure or unavailability of any third party service used or provided by MCI, even if that service is framed or sold by MCI; network unavailability outside the MCI network; or events of Force Majeure. Periods of unavailability during which the customer is in breach of its agreement with MCI, including, but not limited to, violation of the Policy or payment default, shall not be used to calculate unavailability to determine any remedy provided.

L.3.1.3 Scheduled Maintenance Scope

Scheduled Maintenance shall mean any maintenance (a) of which Customer is notified at least 24 hours in advance or that is (b) performed during a standard maintenance window on Saturdays from 11PM - Sundays 3AM, eastern time or (c) performed during a nonstandard maintenance window at a time approved by Customer's designated point of contact. Notice of Scheduled Maintenance will be provided to Customer's designated point of contact by a method elected by MCI (notice on web portal, or direct contact via telephone, email, fax or pager). Nothing in this paragraph shall prevent MCI from conducting emergency maintenance on an as needed basis.

L3.1.4 Customer Inquiries / Notification

Customers can contact MCI support personnel via phone, fax, email, or web site. Our support personnel will respond to customer requests within the time limit established in the SLA, regardless of which method of contact is used.

Customer notification is defined as a documented attempt by MCI personnel to contact the primary designated customer point of contact via phone, pager, email or other agreed-upon method.

Time to respond to a customer inquiry is defined as time to receive, acknowledge, and either resolve or schedule resolution of customer request. Customer inquiry is defined as any normal change (i.e. IP address update, firewall rules change, etc) or request for information. Out of the ordinary requests will be taken and entered into the MCI ticketing system within the time defined in the SLA, and resolution will occur at first possible opportunity. Customer notification of progress will occur at MCI's opportunity and will take the form defined above.

Customer notification of a security or health event or outage will occur within the timeline defined by the customer's service level agreement. Activity appearing to be a security or health event or outage will not be deemed as such until it has been investigated by MCI personnel and determined to be valid. Activity determined not to be a valid security or health event or outage will be recorded as a non-event and will not warrant Customer contact.

L3.1.5 Configuration Changes

All change requests will be acknowledged within the time limit specified by the SLA. One or more MCI analysts to determine if the requested change is likely to cause problems will then review the change request. If not, the change will be implemented within the SLA time limits. If problems are anticipated, MCI support personnel will notify the customer of the issue within the SLA time limit, and will work with the customer to achieve a satisfactory resolution. In this case, notice to the customer within the SLA time limit will suffice as having met the SLA, irrespective of the actual time required to rectify the problem and implement the change.

L.3.1.6 Backup and Restore

MCI will maintain a regular backup of each device's configuration, as specified in the SLAs. Should there be a problem with the device, MCI will use our backup copy to restore the customer's device to its previous functional state, again within the time limits specified in the SLAs.

File restoration of configuration files will occur at either (a) customer request in writing with explanation of request, or (b) MCI's best judgment. Configuration file restoration is contingent upon the customer network and equipment being available,

accessible, and functioning properly. Failure to restore configuration files within the time defined in the service level agreements will not be applicable in the event of system unavailability or Force Majeure, and SLA time calculation will exclude maintenance windows as defined above.

L.3.1.7 Patches, Hotfixes and Signature Updates

MCI will track the current configuration of each managed device. When new patches, fixes, or signature updates are released that are applicable to a Customer's device, MCI Pillars will test and evaluate the patch in our lab. When MCI is satisfied the patch is necessary, useful and represents no undue hazard, MCI will notify the Customer of the patch, and push out the patch remotely to the Customer device. Consistent with the time limits of the SLA, MCI will test, evaluate and apply the patch directly or, with the Customer's approval, schedule it to be performed later during a regular customer maintenance window. Application of patches, hotfixes and signature updates will not be applicable in the event of system unavailability or Force Majeure, and SLA time calculation will exclude maintenance windows as defined above.

L.3.1.8 Vulnerability Scanning of Managed Devices

MCI will provide regular scanning of the managed device for known security vulnerabilities. Information from this scan will be included in the regular reports, and any discovered vulnerabilities will be mitigated as appropriate based on the patches/hotfixes guidelines. This scan only applies to managed firewalls and network intrusion detection devices at the enhanced and premium service levels. Vulnerability scanning is subject to system availability.

L.3.1.9 Data Storage

Data collected from traps, polling and syslog is normalized on the SDA, and information deemed potentially significant by MCI's automated systems is forwarded to operations for analysis. The data is normalized for purposes of cross-platform correlation and root cause analysis. This normalized event data is stored in full for one month. It is then used to generate monthly reports, after which summary statistics from the reports are archived for future reference, and the event data is deleted. Full syslog files are retrieved and archived for Premium level customers only, and are maintained in live storage up to a maximum as specified in the SLA, after which point they are transferred to offline archival storage media. These files will be made available for forensic analysis purposes if requested or necessary.

L.3.1.10 Reporting

MCI provides detailed reporting on information appropriate to the customers' services. These reports are available from our customer web portal at any time. Reports are provided

with multiple levels of detail, suitable for CXO, mid-manager, and IT audiences. Three different levels of report customization are available, based on SLA.

L.3.1.11 Hardware Maintenance and Software Subscription

Customer must purchase and maintain the highest level of vendor hardware maintenance agreement (also known as hardware break/fix) and vendor software subscription service on all hardware and software that will be subscribed to a MCI managed service. This is an additional cost not included in MCI's service charge, and must be maintained and renewed every year at customers' expense. If customer fails to maintain these maintenance contracts and subscriptions or fails to furnish appropriate information on these contracts to MCI in a timely fashion, MCI's obligations under the SLAs with regard to hardware break/fix and updating, patching and maintaining managed devices will be null and void.

L.3.1.12 Service Provisioning Guarantee Process

MCI's installation and service provisioning commitment shall commence on the day MCI receives a signed design approval form from the Customer. The Service is deemed to be provisioned when MCI is prepared to provide Web Portal access codes to Customer and begin providing service. The Service Provisioning Guarantee is not available if an installation delay is attributable to non-standard products, acts or omissions of Customer, its employees or agents, acts or omissions of MCI's partners, shipping or procurement delays outside of MCI's reasonable control, Customer not passing MCI's credit check, or reasons of Force Majeure.

In the event the Provisioning Process is unreasonably delayed by acts or omission by Customer, and after MCI has made repeated documented attempts to overcome such acts or omissions, MCI will begin invoicing for all effected services that have not been provisioned within 90 days of acceptance of this Statement of Services.

L.3.1.13 Incident Response and Risk Mitigation

Incident response and risk mitigation begins the moment that a security or health event is identified and validated by MCI. Depending on the nature of the event, it may take an indeterminate time to resolve. MCI will keep the customer aware of all actions transpiring, and will inform the customer upon successful resolution of the event. Incident response is subject to system availability and Force Majeure.

L.3.2 SLA Violation Remedy

For each time that any of the Performance Criteria (other than the Service Provisioning Guarantee) are not met during a calendar month, subject to the above

definitions, Customer shall receive a credit to be applied to future amounts due MCI equal to 1/30th of the total monthly fee due MCI for the effected service.

For a violation of the Service Provisioning Guarantee timeline, MCI will provide Customer a one-time credit equal to 10 % of the Transition Fee (services only, not including hardware or software) for each affected service.

L.3.3 SLA Metrics

L.3.4 SAS Response Metrics

Response Agreements			
General Service Responses	**Response Metric**	**Contact**	**Product**
Maximum time to respond to general customer inquiry. A general inquiry may include the following: • Scheduling • Conference call or onsite agenda • Description of deliverable • Deliverable status • Project status • User Account Maintenance	Next Business Day	Project Manager	Enterprise, Perimeter, Service Provider
Maximum time to respond to routine technical customer inquiry. A routine technical inquiry may include the following: • Scan Results • MCI Methodology • Essential Practice Requirements • Certification Status • Research Request	Next Business Day	Security Analyst	Enterprise, Perimeter, Service Provider
Maximum time to respond to security incidents (i.e. hacking, virus, defacement, denial of service)	30 minutes	Incident Response Team	Enterprise, Perimeter, Service Provider
Maximum time to respond to remote scan related emergencies.	30 minutes	T-SOC	Enterprise, Perimeter, Service Provider
MCI Alerts	N/A	Security Analyst	Enterprise, Perimeter, Service Provider
MCI 2001 Portal system availability	95.00%	Helpdesk	Enterprise, Perimeter, Service Provider

General Service Responses	Response Metric	Contact	Product
Reports			
Perimeter Discovery Scan Report			
Expert analysis of scans	7 business days	Security Analyst	Enterprise, Perimeter, Service Provider
Reporting Frequency	As necessary	N/A	Enterprise, Perimeter, Service Provider
Perimeter Risk Assessment Report			
General Service Responses	Response Metric	Contact	Product
Expert analysis of scans	7 business days	Security Analyst	Enterprise, Perimeter, Service Provider
Reporting Frequency	Quarterly	N/A	Enterprise, Perimeter, Service Provider
Internal Risk Assessment Report			
Expert analysis of scans	15 business days	Security Analyst	Enterprise
Reporting Frequency	Annually	N/A	Enterprise
Desktop Risk Assessment Report			
Expert analysis of data	7 business days	Security Analyst	Enterprise
Reporting Frequency	Bi-annually	N/A	Enterprise
War Dial			
Expert analysis of scans	7 business days	Security Analyst	Enterprise, Service Provider
Reporting Frequency	Bi-annually	N/A	Enterprise, Service Provider
Onsite Assessment Report			
Expert analysis	15 business days (after on-site)		
Reporting Frequency	Annually	N/A	Enterprise, Perimeter, Service Provider
Post-Certification Management Report			
Reporting Frequency	Annually	Security Analyst	Enterprise, Perimeter, Service Provider

Attachment M
to
RFP 2002-033

CERTIFICATION REGARDING LOBBYING

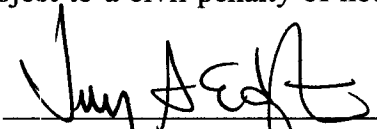
The undersigned certifies, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee or an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal Contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative Agreement, and the extension, continuation, renewal, amendment, or modification of any Federal Contract, grant, loan, or cooperative Agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal Contract, grant, loan, or cooperative Agreement, the undersigned shall complete and submit standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

c. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and Contracts under grants, loans and cooperative Agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature: 

Printed Name: Jerry A. Edgerton, Senior V.P.

Organization: MCI

Date: 11/13/07